Owner’s Guide

Smart TV Stick
TIZZBIRD™ N1

Rev 3.1.0

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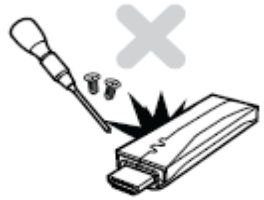
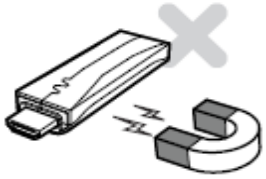
1 Safety Notice

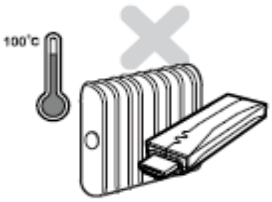


Do not try to disassemble the unit. It may cause malfunction or fire.



Keep away the unit from magnetized devices. It may erase the data stored in the HDD drive inside.

Do not place the unit in places that are exposed to oil, water, dust, humidity, rain or wind.



Keep away the unit from overheated areas, such as heaters. Place it well ventilated location. Ensure that a free airflow is maintained around the unit.
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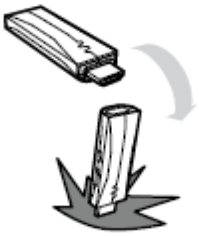


Do not touch the power plug with wet hands or use defective power cables and electric outlets. It may cause electric shocks or fire.
.

Do not drop or shock the unit from heights. Doing so may cause serious damage to the parts inside.

Unplug the power cable when the device is not used for a long time.

2 Features

Tizzbird N1 is so small that let you install it directly to HDMI port of any TV. The power will be supplied by USB port of TV, so no need to install another power adapter.

Tizzbird playbacks various full HD movie contents including DVD backup formats as well as AVI, MKV, XVID and TS formats on TV. It supports most recent video formats such as H264 and VC-1.

TizzBird provides a full web-browsing capability very similar like PC. Mouse and keyboard can be attached to support various inputs, which enable slick Internet surfing even on the big screen TV.

TizzBird playbacks high resolution photo images on TV. It can slideshow the photos while playing back the music in background. Transition effects such as fade-in-out or zooming can be applied during transition of each photo.

TizzBird playbacks high quality lossless music such as FLAC, WAV up to 24bit/ 96Khz. It also supports compressed MP3, OGG, AAC and CUE format thru high fidelity Wolfson DAC.

TizzBird runs applications on TV exact same APPs installed on the Android Smartphone without any conversion. This also includes 3D games or 3D APPs that utilize the superb OPEN-GL 3D accelerator. Some APPs that fixed screen-aspect ratio cannot be applicable in some cases.

It also supports 802.11n Wi-Fi which enables faster wireless networking ever before. TizzBird supports NFS, SAMBA, uPnP network protocols to connect various servers. It also has multiple mounting drive options and automatic browsing capability which maximize the network connection experience.

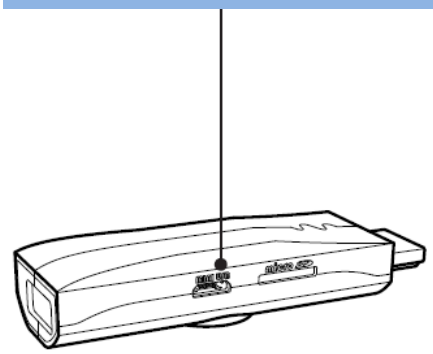
3 Specifications

Model	TizzBird Stick N1
System	TCC8925 Cortex-A5 800Mhz CPU/ 256KB L2 Cache 512M Memory(**N1M** model)/ 1GB Memory(**N1G** model)/ 4GB T-flash Booting time from stand-by is less than three seconds.
OS	Android Rev 4.0 Ice cream sandwich
Video	Format: AVI/ MKV/ MPG/ WMV/ VOB/ TP/ TRP/ M2TS/ MOV/ FLV/ IFO/ ISO
	Codec: MPEG 1/2/4, H264, XVID, WMV9(MP@HL4.1) VC-1(AP@L3)
	Resolution: Max 1080p 60Hz
Audio	MP3/ OGG/ WAV/ AAC/ FLAC/ APE/ WMA
	Dolby Digital / DTS Down Mixing and Pass-thru
Image	JPG, JPEG, BMP, PNG, GIF
Connection	USB 2.0 Host Port 1 EA
	USB 2.0 OTG Port 1EA (by Cable)
	Wireless Wi-Fi 802.11n (Embedded)
	Network Protocol : Samba (CIFS)/ NFS/ uPnP
Video Output	HDMI 1.3a
Audio Output	HDMI
File System	NTFS, FAT32
Subtitle	smi, smil, sub, sub/idx, srt, ssa, ass
Power	Optional 5V 1A power adapter
Languages	English, French, German, Spanish, Italian, Portuguese, Vietnamese, Swedish, Czech Norwegian, Danish, Japanese, Korean, Traditional Chinese
Dimension	75 x 23 x 15 mm

4 Description of Each Part

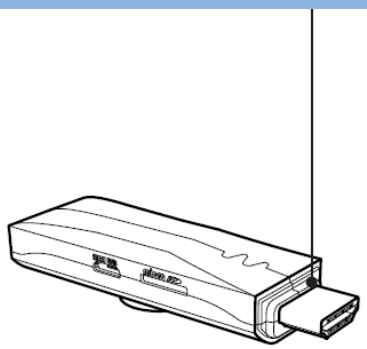
Micro USB port

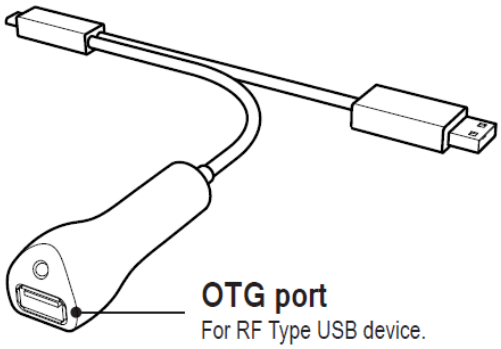
To connect power and IR receiver cable



HDMI port

To connect TV.





Connectors

Please connect the unit to HDMI port of the TV.

Please connect the FLASH DRIVE, MOUSE or KEYBOARD on the USB host port.

Please connect MOUSE or KEYBOARD on the USB OTG port.

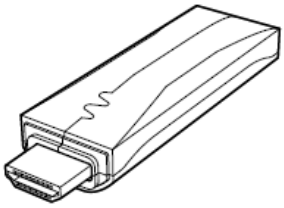
**** USB host DOES NOT PROVIDE enough POWER to drive 2.5" HDD.***

Please use HDD drive with external power supply.

**** USB OTG port only allows connection of MOUSE or KEYBOARD.***

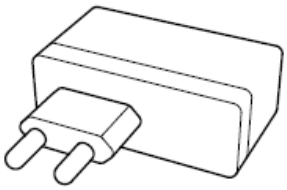
5 Package Contents

The TizzBird package contains the following items. The shape of items described below may slightly different from the actual contents.

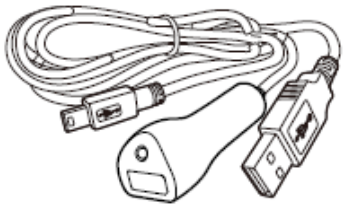


Main Unit

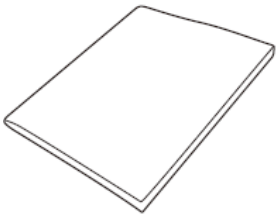
Remote



Power Adapter



Y-Cable



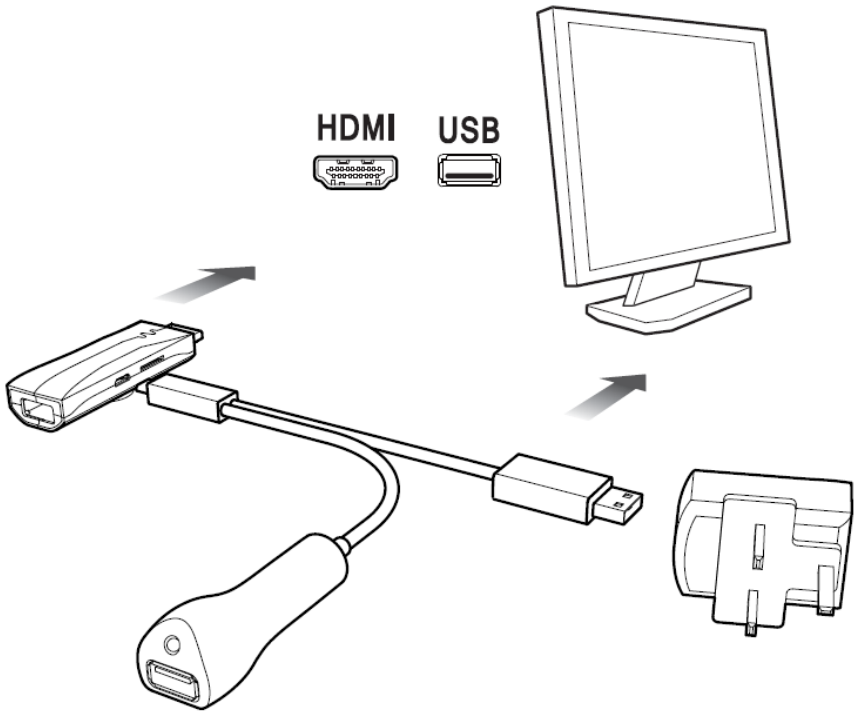
Quick Guide

6 Installation and Connection

Connecting to TV

The TizzBird supports HDMI audio and video output for connection to a TV.

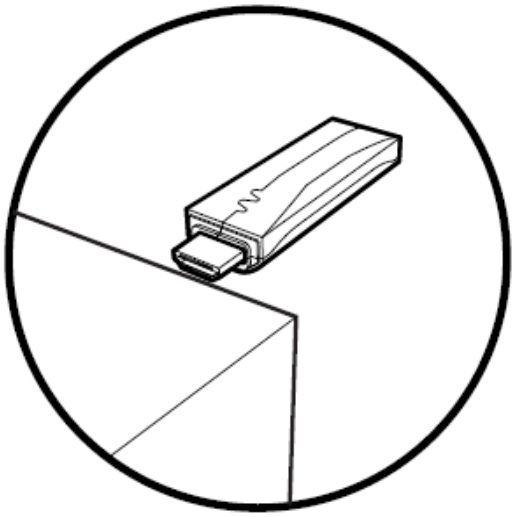
Connection to HDMI Out	Power Cable Connection
Connect the TizzBird N1 HDMI to your TV. HDMI can also transfer the audio signal and no need to connect another cable for audio.	Connect the power cable of TizzBird N1 to the TV USB port like below. If you experience some problem during playback, you may connect supplied power adapter.

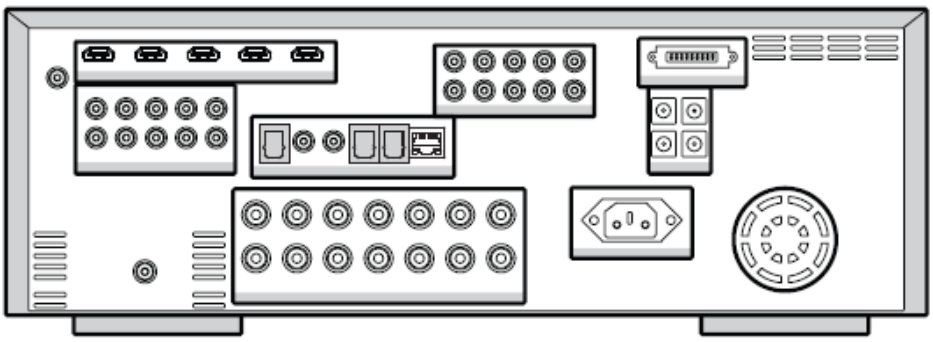


Connecting to AV Receiver

Tizzbird N1 can be connected to HDMI input AV receiver. Please select the appropriate input at the audio receiver using remote controller after connection.

Connection to AV Receiver
Connect the Tizzbird N1 HDMI to your AV receivers' HDMI input. Then connect the AV receivers' HDMI output to the TV input.



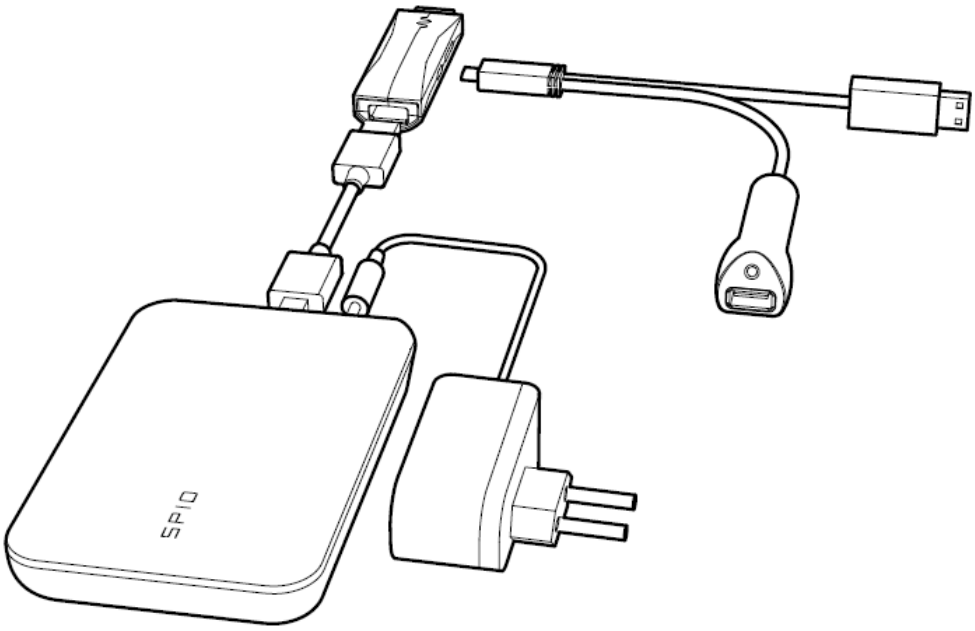


Connecting USB Device

TizzBird provides two USB 2.0 host ports to connect various external devices, such as FLASH MEMORY drive, external USB HDD enclosure, digital camera/camcorder, keyboard & mouse, or USB video-cam & microphone.

Caution!! → *To connect any external 2.5" HDD drive, please* ***DO USE EXTERNAL POWER SUPPLY of HDD or Y-CABLE*** *for that. The N1 does not guarantee the power to drive the external HDD under any circumstances. The external HDD should be connected to the USB port of device, not USB port on the cable.*

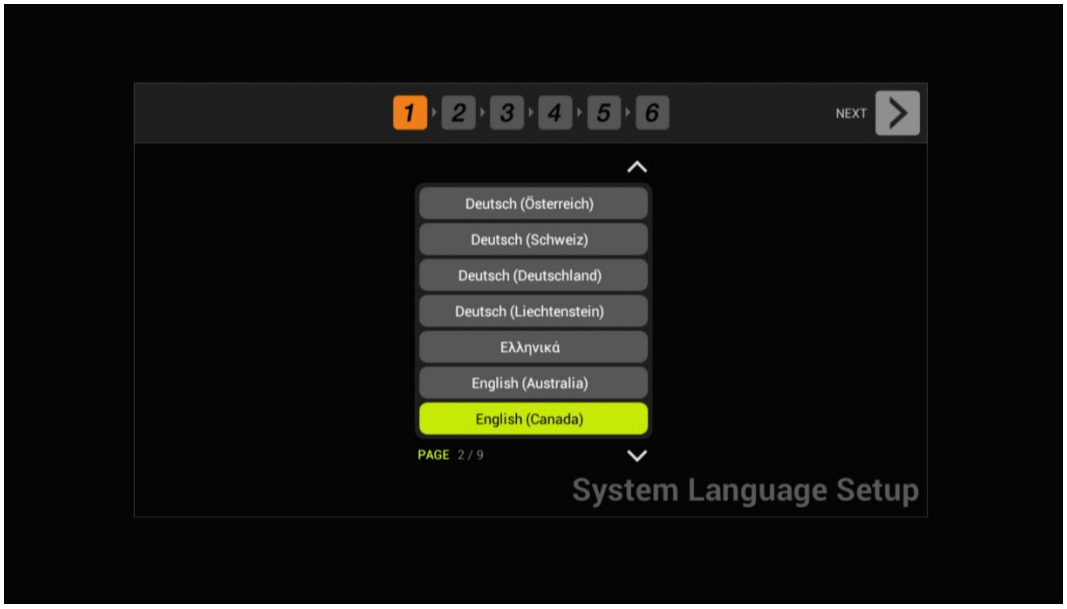
Recommendation → *The USB host port on the cable should be used for mouse, keyboard or flash drive. It's actually USB 2.0 OTG port so may cause compatibility or performance problem on some devices.*



7 Initial Setup Wizard

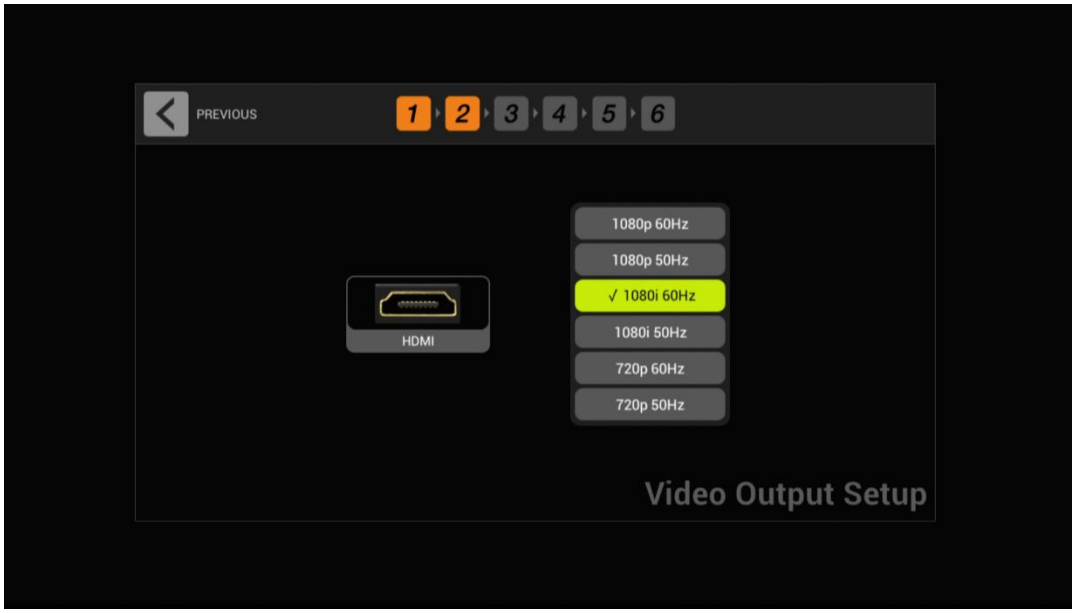
Initial setup consists of 6 steps of WIZARD style sequences. The sequence of WIZARD will be LANGUAGE SETUP → VIDEO OUTPUT SETUP →SCREEN FITTING → NETWORK SETUP → TIME&WEATHER SETUP → THEME SETUP The PREV/ NEXT button on the top side of each screen will bring the PREV/ NEXT step

1) Language Setup

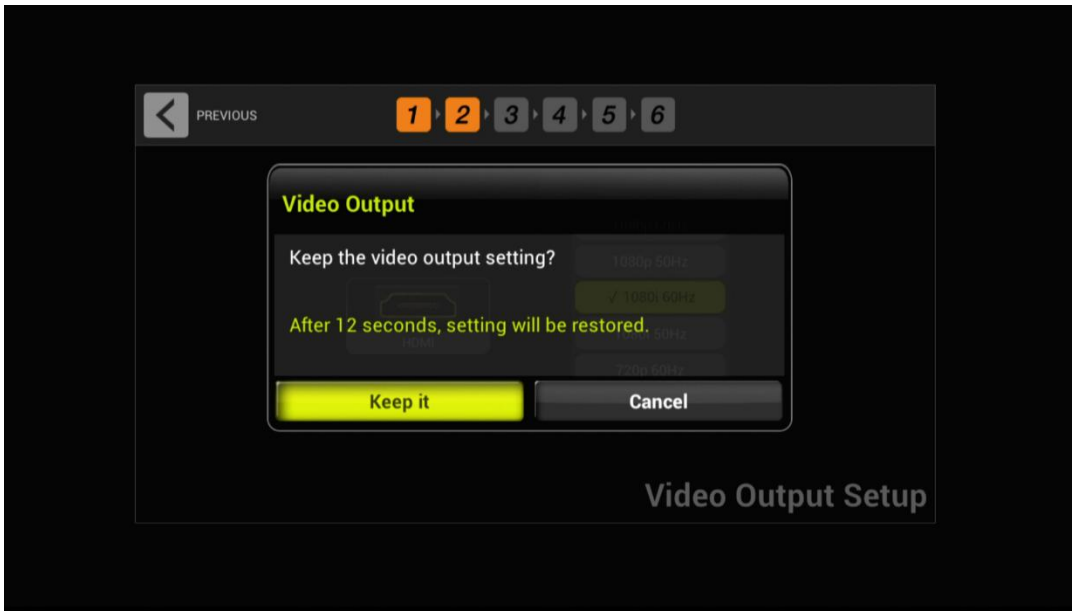


The first step is setup the menu language. The setup wizard will enumerate all the languages available at this moment. Please select one of the menu languages for your use.

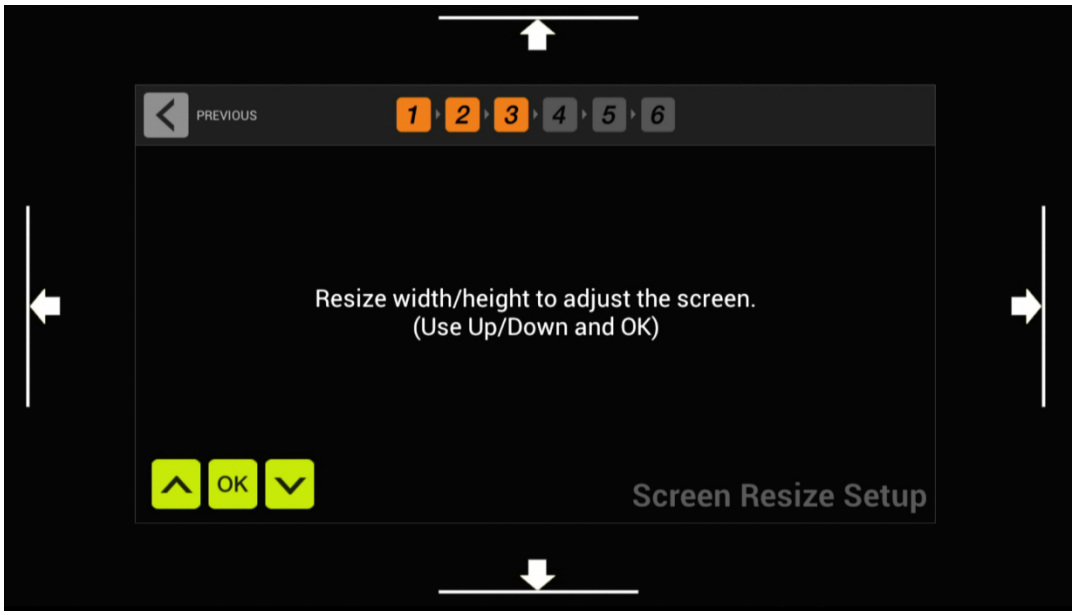
2) Video Output Setup



The video resolution selection screen will appear as above. Please select the appropriate video output for the display. If you select, the pop-up will ask you keep resolution change or not. If the pop-up screen will appear, please select "Keep It".

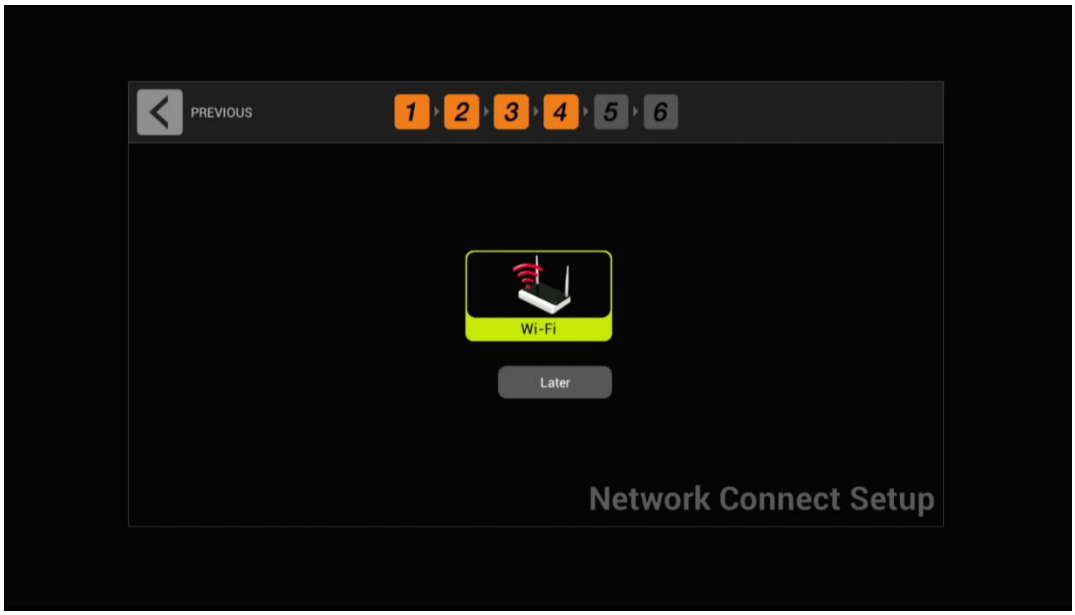


3) Screen Fitting Setup

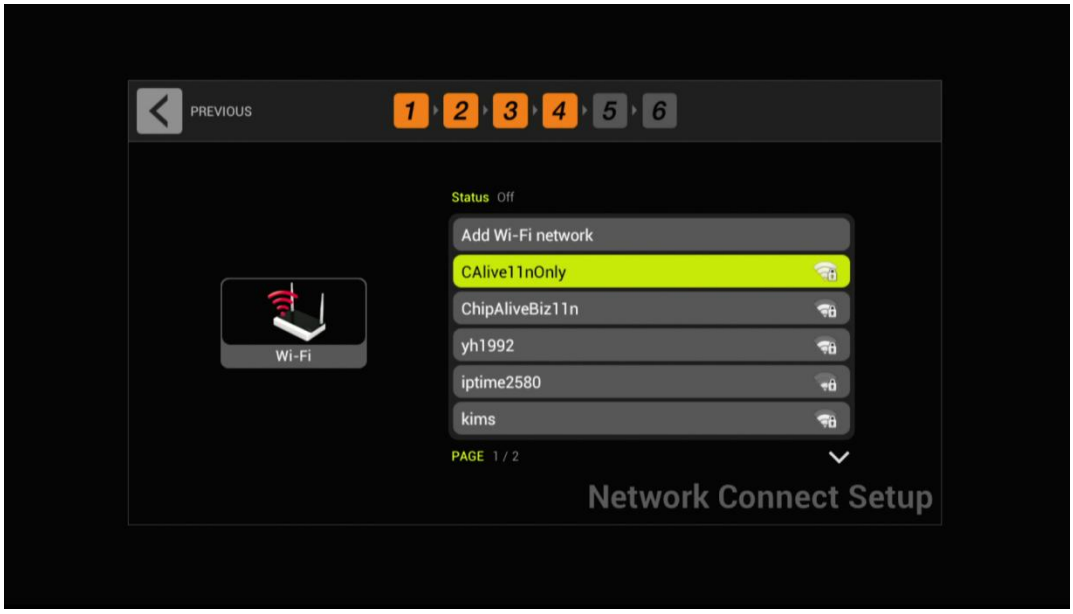


The 3rd step is fitting the screen size according to user's TV. Clicking UP/DOWN button at left-bottom side will increase/ decrease the screen size accordingly. Press OK when done.

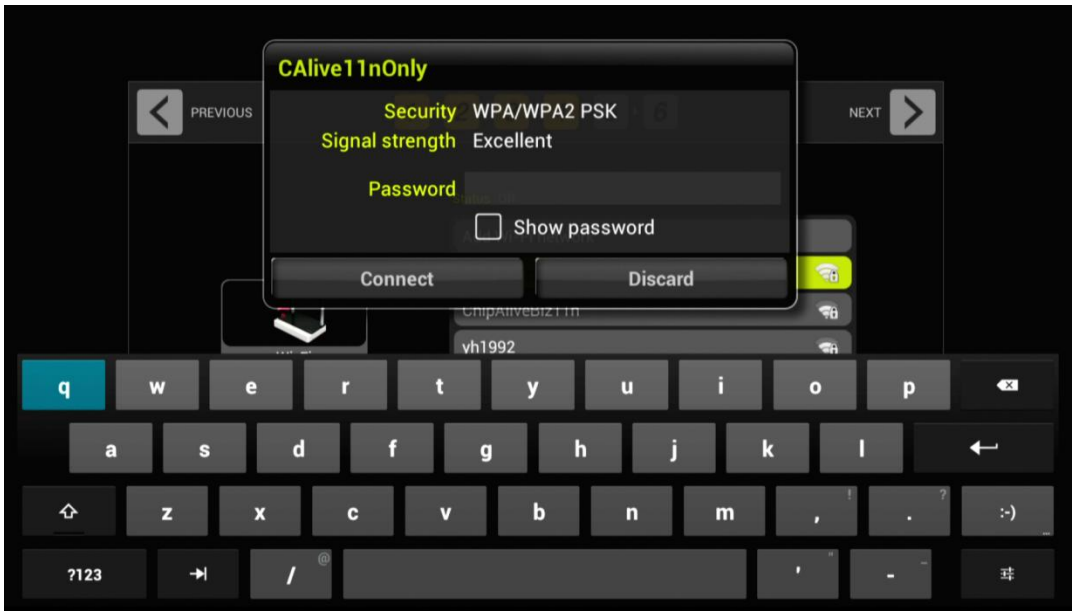
4) Network Setup



The 4th step is setting up network. Wi-Fi can be configured here. If Wi-Fi button were pressed, the following screen will enumerate all available Wi-Fi AP. Select one of them and click it.

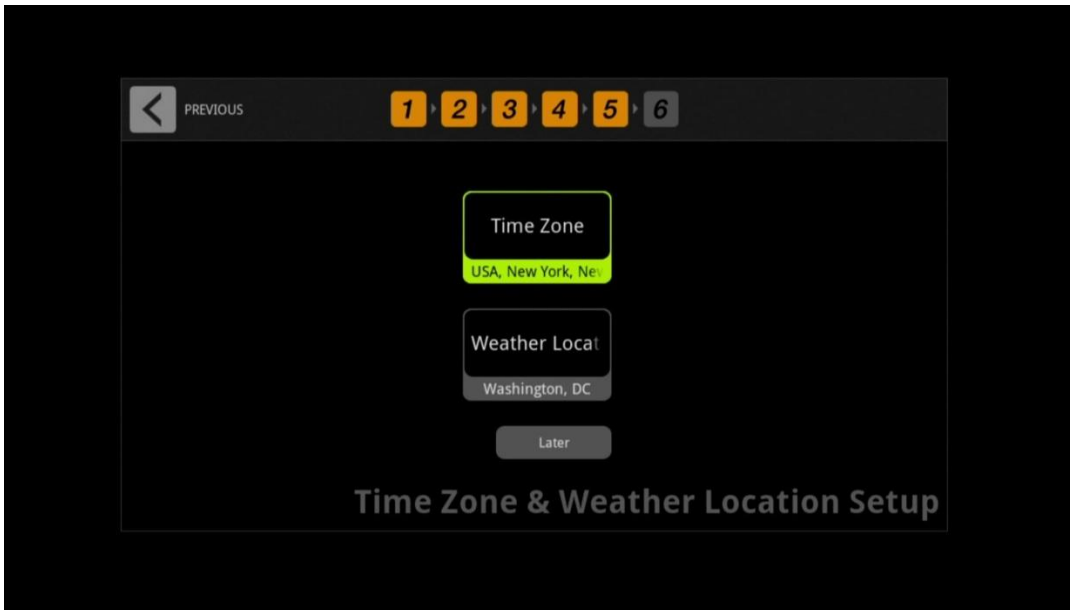


The next page screen will pop up to configure the Wi-Fi.

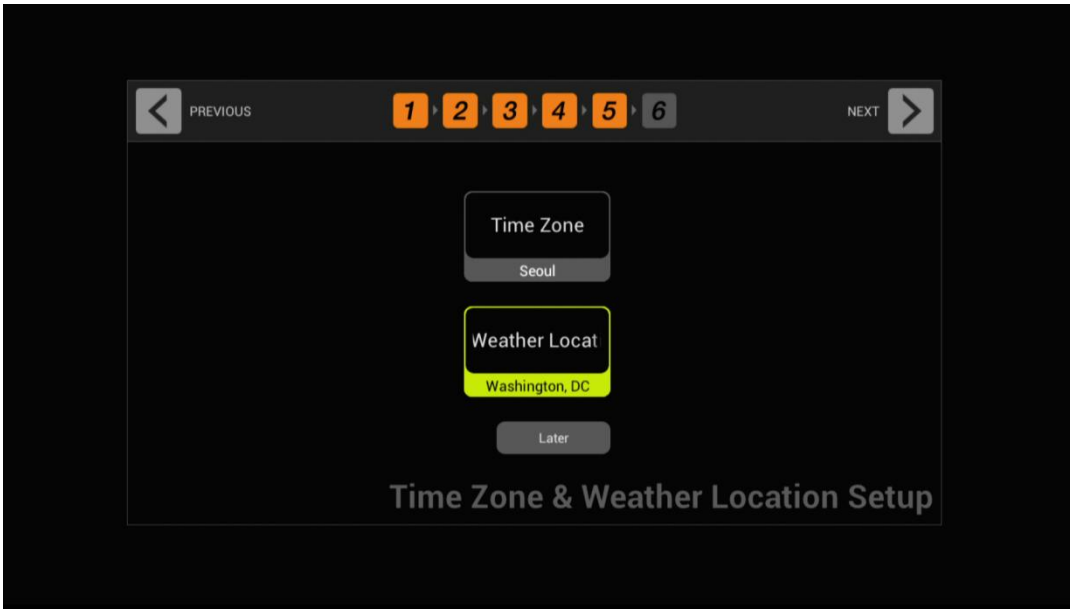


Typing the password will finalize the Wi-Fi setup and Internet connection will be made.

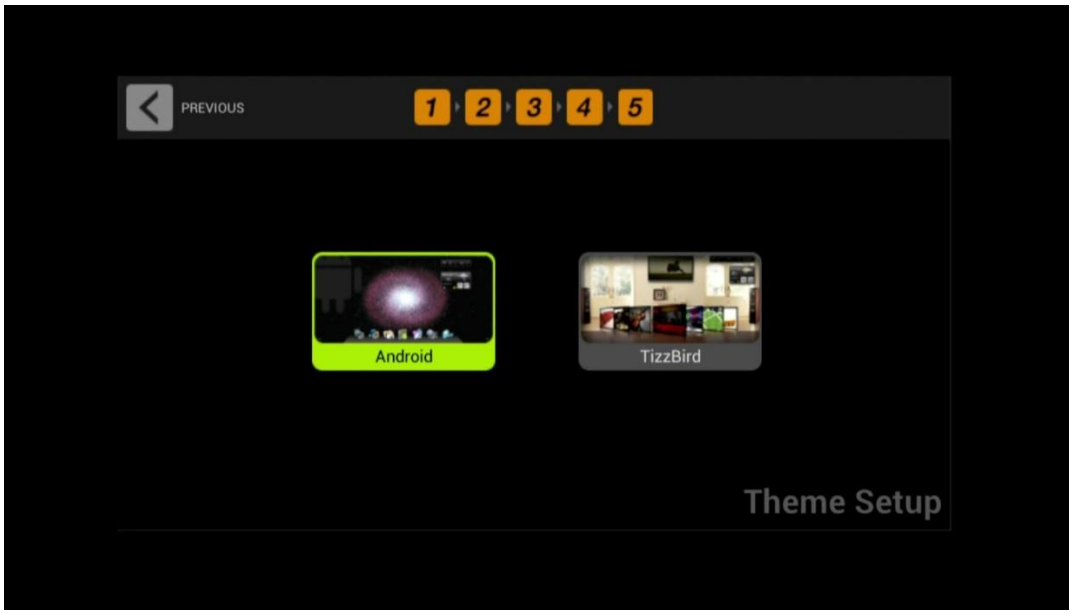
5) Time Zone & Weather Location Setup



The next step is setting up time zone and weather location. Tizzbird provides automatic setup for those as long as network is connected. To setup the time-zone, select the Time-Zone button as above screen. Then select "AUTO" if Internet is connected. Otherwise, you can manually input the time-zone. The weather location setup is almost the same. Select "Weather Location" then select "Auto" button if network is connected.

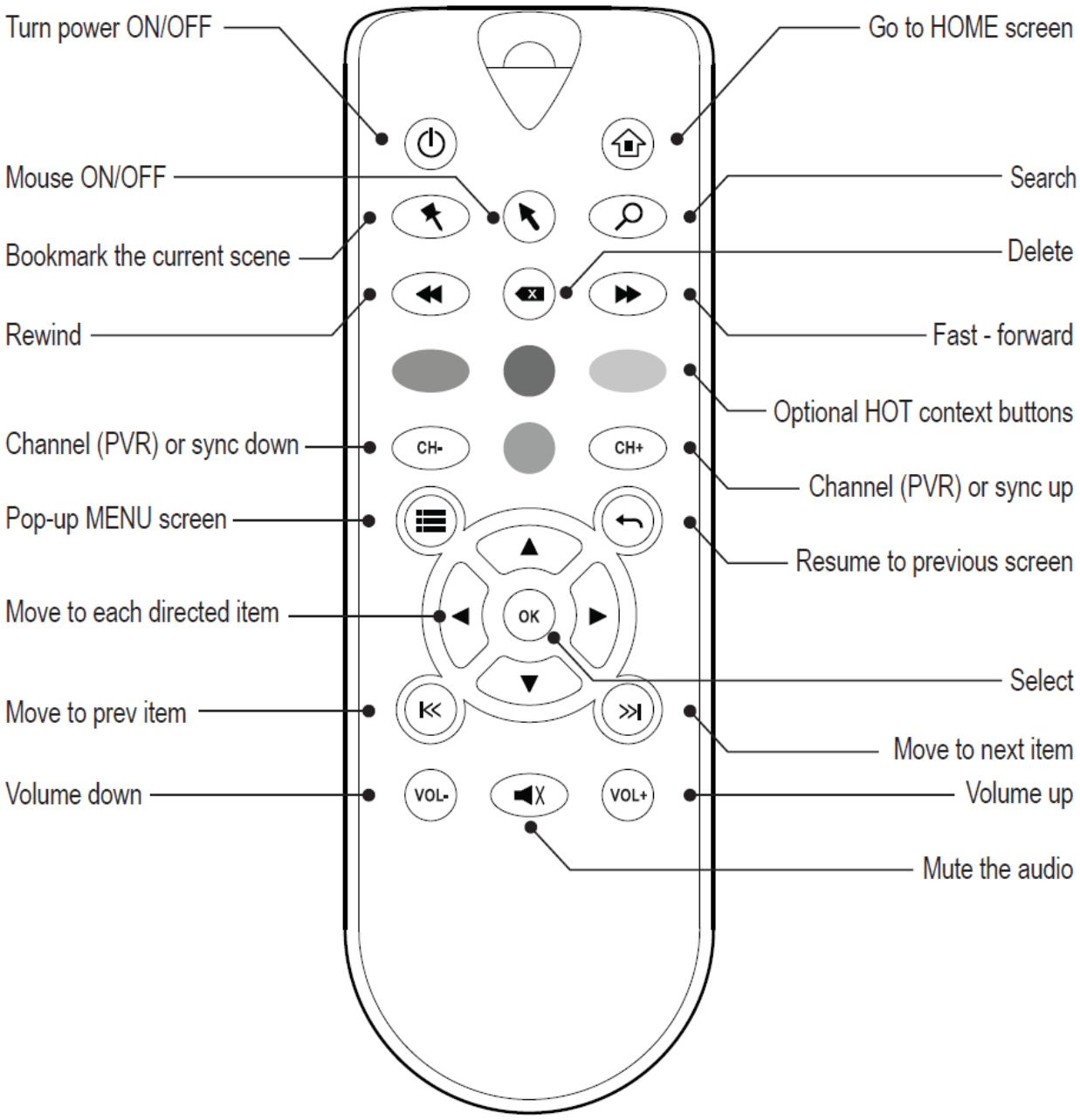


6) Theme Setup



The final step is setting up theme. Tizzbird N1 provides two type of theme, one is the Android theme, the other is Tizzbird classic theme. If you are familiar with smart phone user interface, please choose "Android". If you are more familiar with multimedia player, then choose TizzBird theme. The theme can be selected freely at settings later.

8 Using Remote Controller



9 The Home Screen (Android Theme)

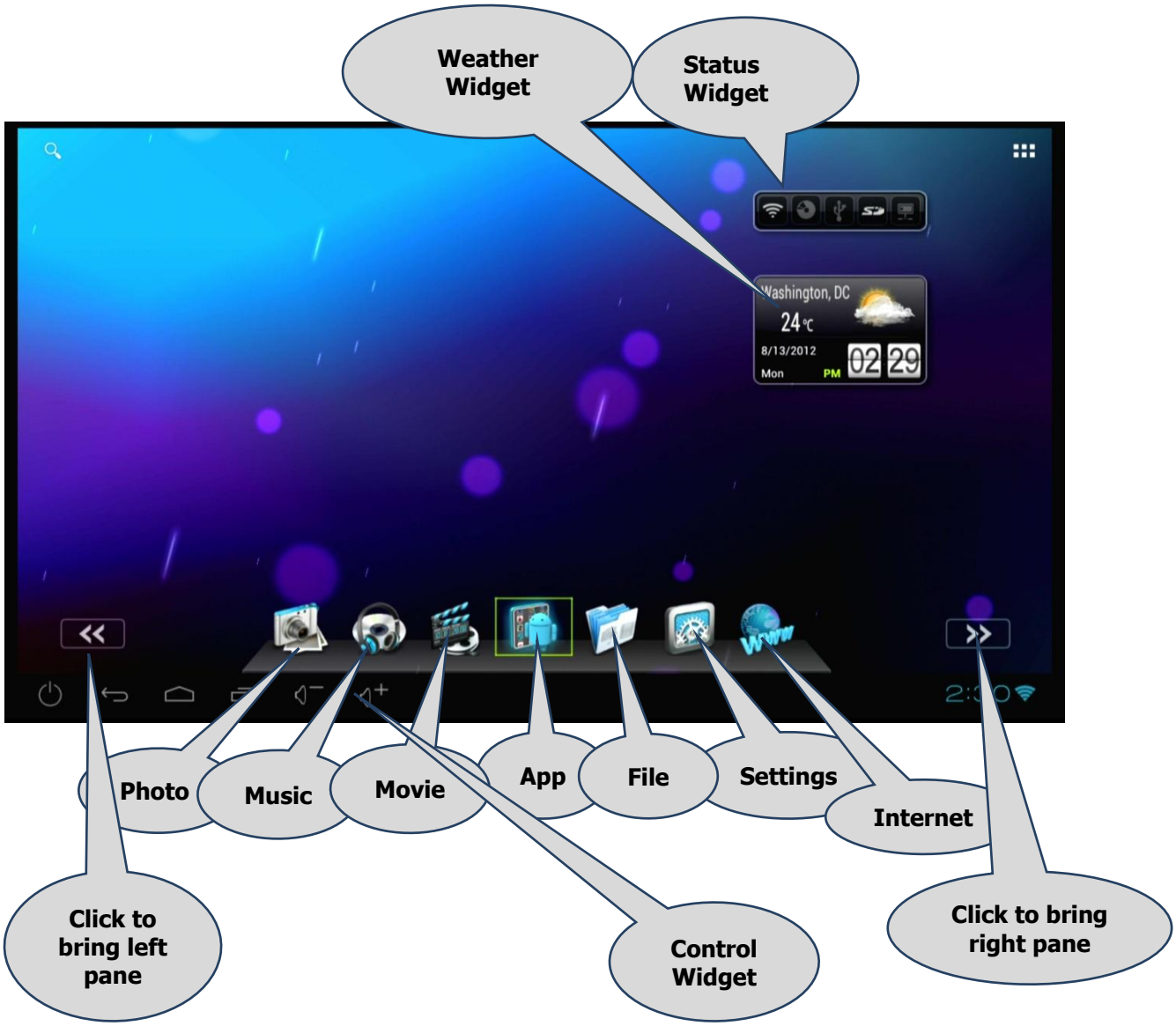
The HOME SCREEN is very similar with smart phone. The APPs can be located at the surface of HOME SCREEN freely, while the specific browsers like MOVIE/ MUSIC/ PHOTO/ FILE/ WEB/ APP browser will stick as icons at the bottom side of HOME SCREEN.

The several WIDGETs will help the user navigate thru the screen.

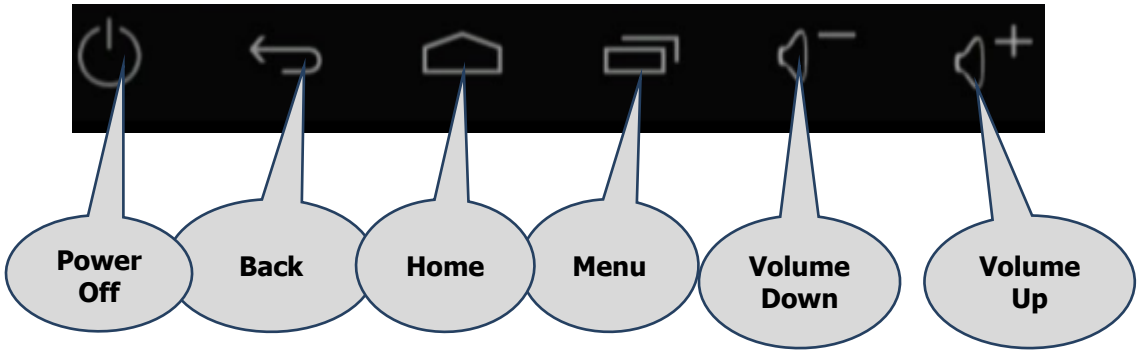
Weather Widget shows the weather, calendar and time.

Click the WEATHER WIDGET will bring the configuration screen of location and time-zone.

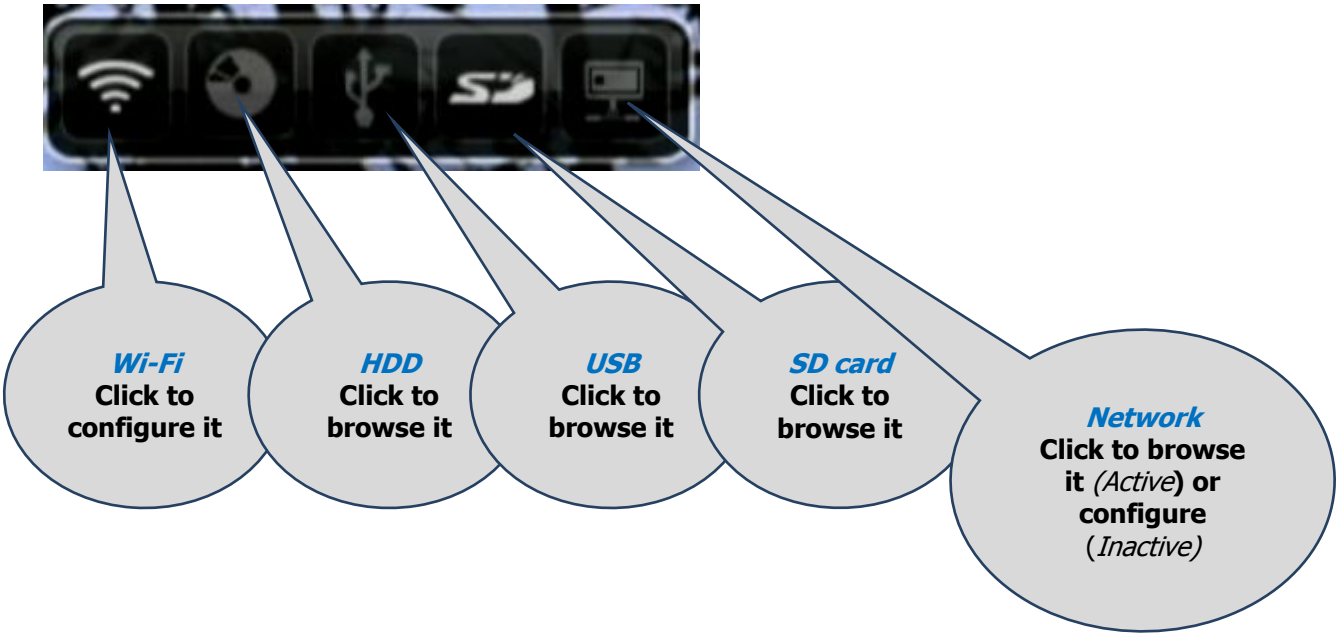
The apps at APP browser can be moved by long-press the apps and drag it to the home screen just like the smart phone.



The ***CONTROL WIDGET*** lets users control the SCREEN and VOLUME by MOUSE. *The CONTROL WIDGET cannot be accessible by REMOTE. It's because one of the nature of Android.* It's only accessible by MOUSE. The same functional buttons are on the remote already. Please use them.



The ***STATUS WIDGET*** shows current status of each device. It will highlight when activated.

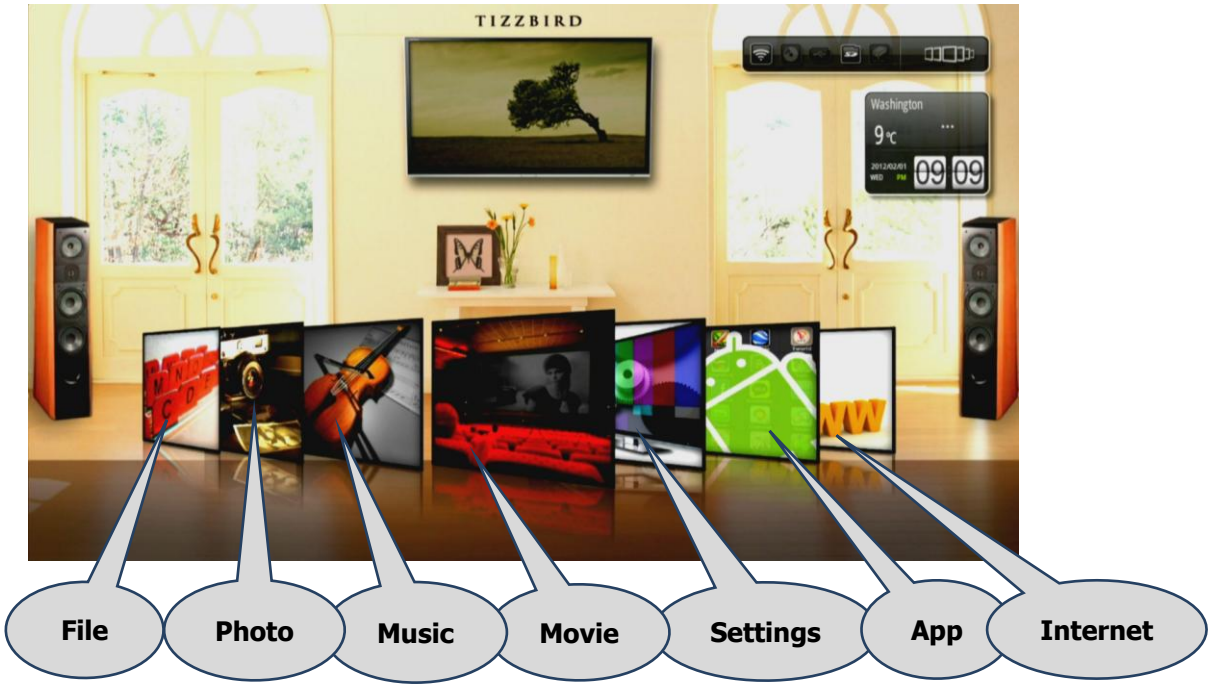


10 Start Up and Terminate

10.1 Home Screen (Tizzbird Theme)

The below HOME SCREEN will appear after booting up. It shows 7 different items. The each item can do the each designated browsing. For example, movies can be browsed at MOVIE BROWSER. HOME SCREEN consists of 7 browsers including (from left to right) FILE/ PHOTO/ MOVIE/ MUSIC/ SETTINGS/ APP/ WEB browsers.

To execute each browser, select the browser by arrow buttons on the remote and press *<OK>* button.



The default selection would be MOVIE BROWSER at first start-up. TizzBird is the unique unit compared to other units, since it retains consistent user-interface based on the powerful database feature of Android OS. TizzBird provides full featured cover-view and imaged oriented browsing, which is highly intuitive. The other units can only provide user interface, mostly text based information with additional images.

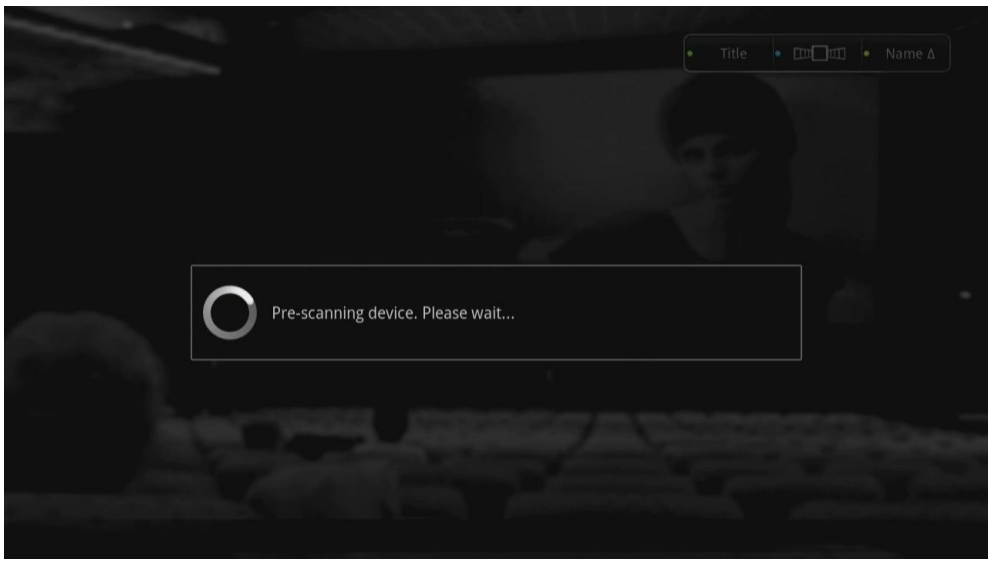
Movie Browser: Register all movie files and let you browse them on poster based.
Music Browser: Register all music files and let you browse them on album-art based.
Photo Browser: Register all photo files and let you browse them on folder image based.
Settings Browser: Browse available settings.
App Browser: Browse registered applications and let you select and execute them.
Web Browser: Let you surf Internet.
File Browser: Browse files and folders based on the device based. (Legacy mode)

10.2 Cover-View Style

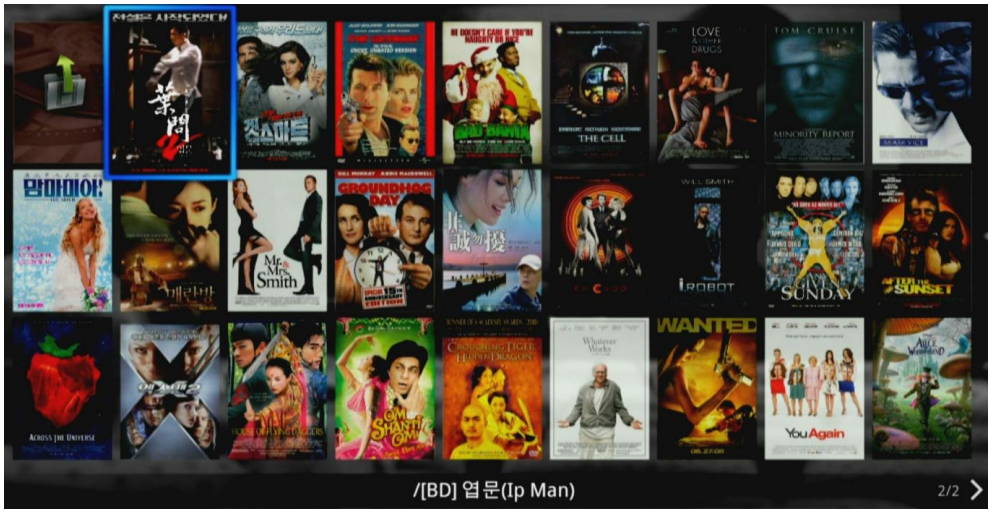
TizzBird provides Open-GL 3D based Cover-View user interface. But unlike F20 and F30, N1 only provides the fixed mode of Cover-View style at each mode.

10.3 Movie Browser

Movie browser will scan movie files on the devices when booting first or attaching external device thru USB. It will take several minutes (depends on size of HDD) for the 1st scanning. Once it's scanned, it will take much less time on next boot.



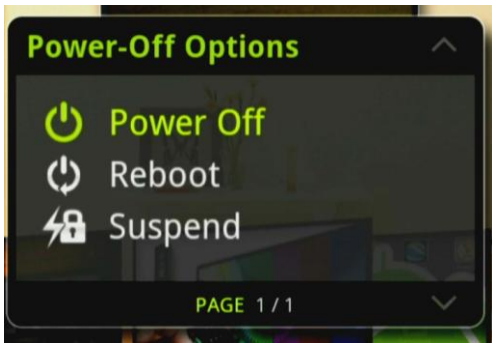
If movie posters are available for the movies, then cover-view screen like below will appear.



10.4 Turning Power Off, Completely Power Off

To turn off the power, press *<POWER>* button on the remote or press power key on the front panel. The unit will be in "STAND-BY" status.

Press power button on remote control more than 1 second will bring up the following POWER-OFF DIALOG BOX.



Power Off → Turn off power completely

Reboot → Reboot the system

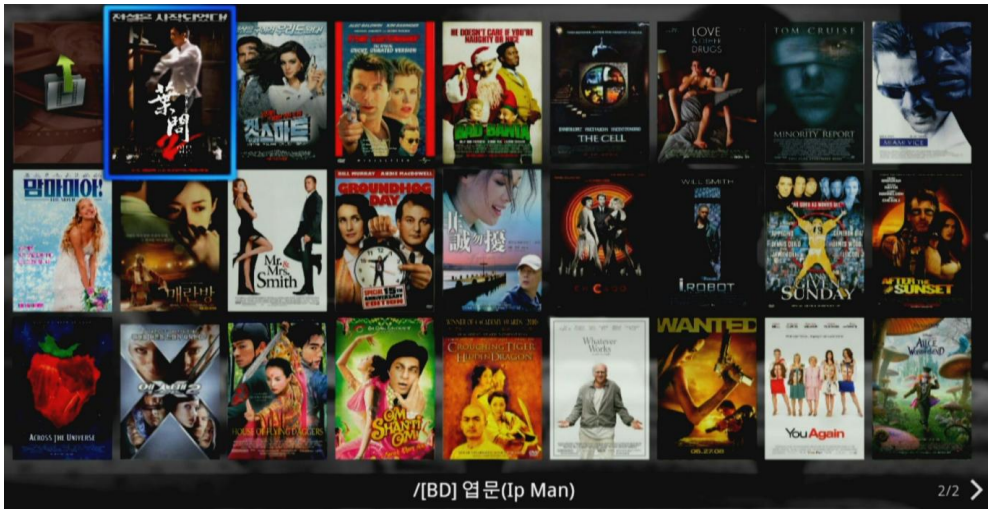
Stand-by → Make it suspend mode

This unit supports high speed booting mode from STAND-BY. It takes less than three seconds to resume to the normal operation status from STAND-BY mode.

11 Watching Movie

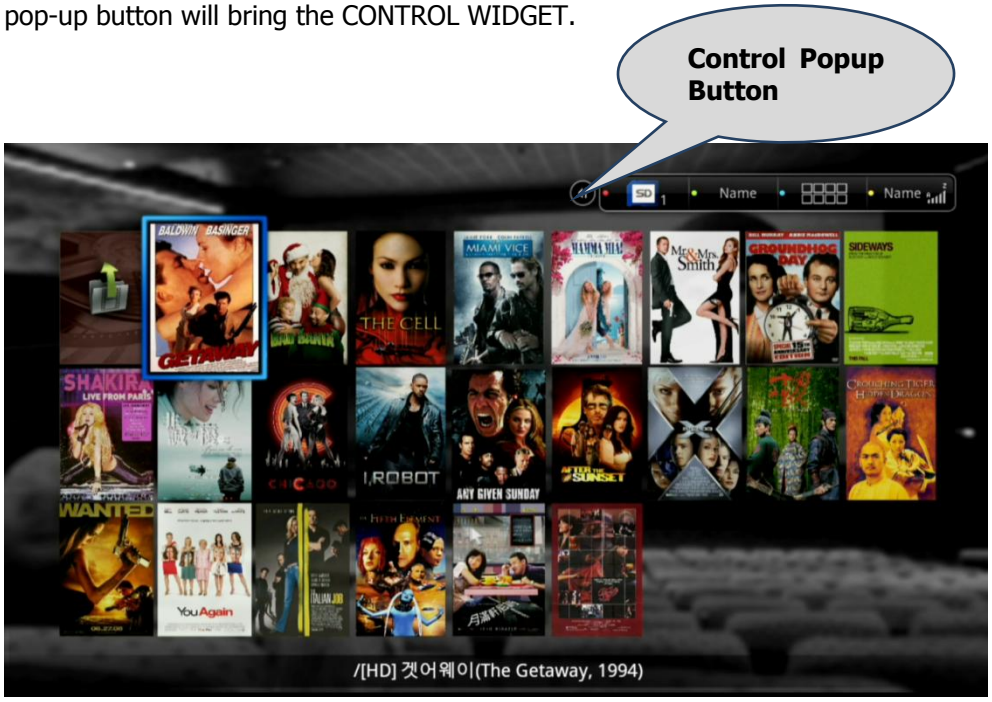
11.1 Movie Browser

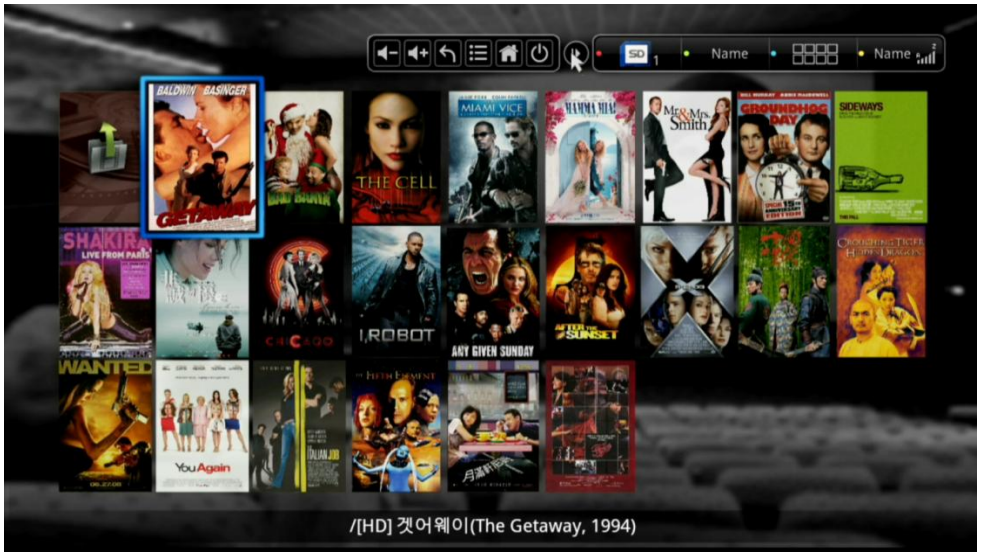
If MOVIE BROWSER is selected and if the posters were already scraped or registered for movies, then the following screen will appear. This screen is called "MOVIE BROWSER" screen. Up to 15 movies can be browsed at once per page. Arrow keys can be used to navigate thru posters. Keep press arrow key to browse continuously.



11.2 Control Widget at Browser Screen

The each specific browser was changed to support the control widget. Clicking the control pop-up button will bring the CONTROL WIDGET.

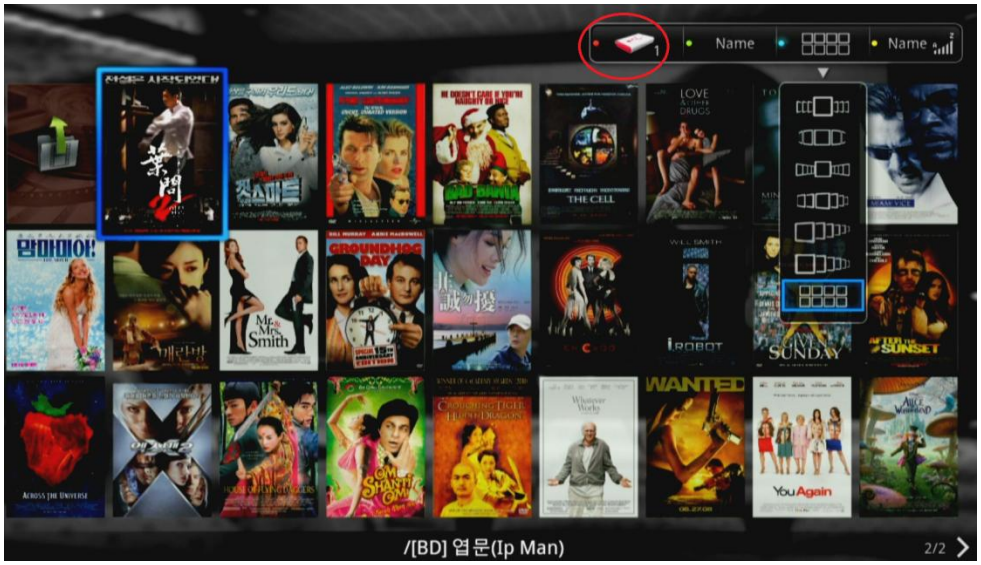




The control widget bar will appear to control the overall behavior of the browser.

11.3 Selecting Device

The attached device can be selected by RED color button on the remote, like below picture. This kind of device selection can be also available at MUSIC and PHOTO BROWSER.



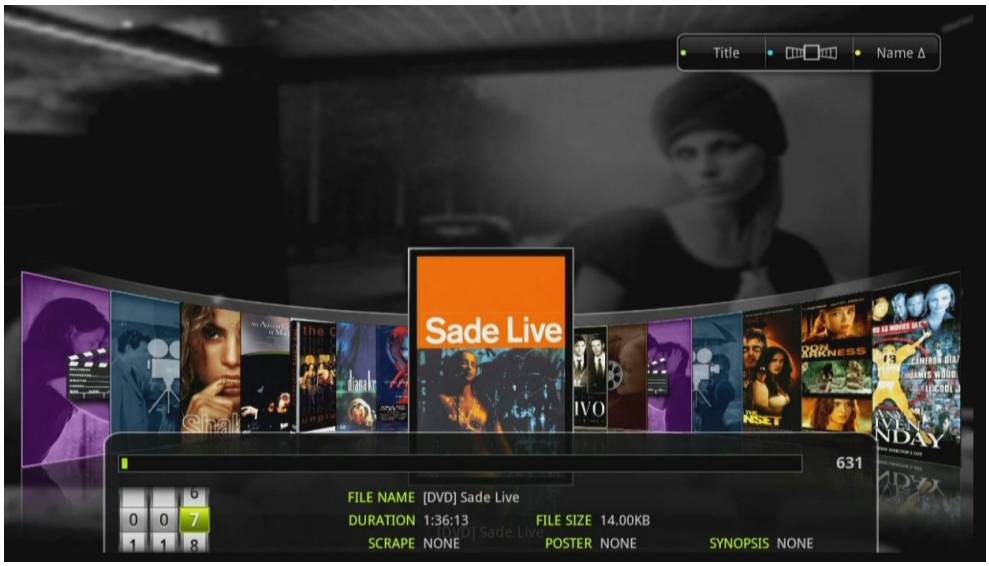
[Device Selection]

Selecting DATABASE will scan all the movie files on every device and show them. Selecting each device like HDD, USB or NETWORK DRIVE will just show the folders on that device. It will show the <Movie> folder on that device and will be browsed by FOLDER BASE.

11.4 Movie Browser Menu

<MENU> button at "MOVIE BROWSER" can be used to do various actions including searching movies, scraping movie posters, jumping based on bookmarks & resuming lists. Press *<MENU>* button on the remote.

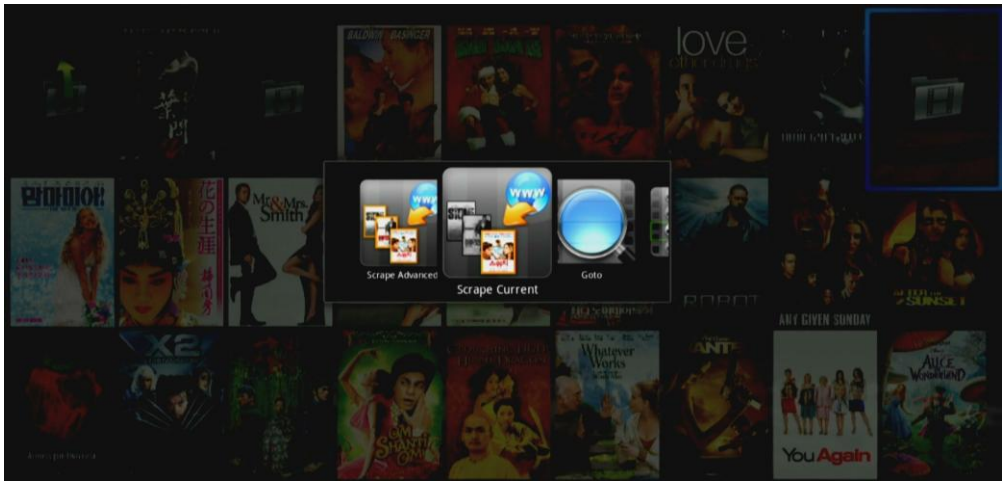
"SEARCH" menu like above picture lets you search the movie quickly based on the title names and other information. Press *<OK>* to bring the following image. Use *<UP>* or *<DOWN>* arrow key to select the index, *<LEFT>* *<RIGHT>* arrow key let you change the digit of the wheel control, so titles can be browsed fast. Press *<OK>* to bring the poster of the selected movie.



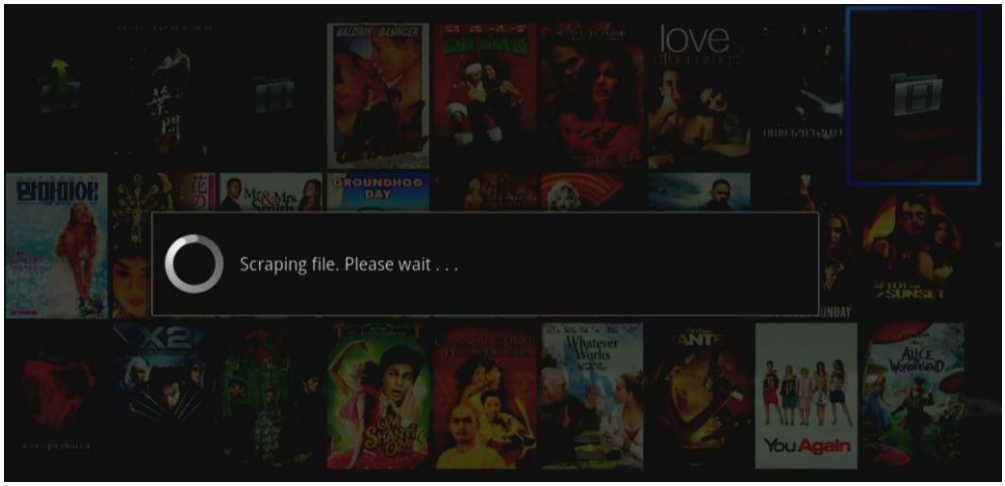
11.5 To Add Movie Poster

Movie posters should be added to make fancy movie browser like following screen. TizzBird has built-in poster downloader inside called <SCRAPER> which means scraping the movie information from network. Network should be connected before scraping movie posters. Please refer to section 8.8 to configure network settings. If movie does not have poster, the default image will appear like following screen. Press *<MENU>* to add movie poster.

Select <Scrape Current > on the menu and press *<OK>*.

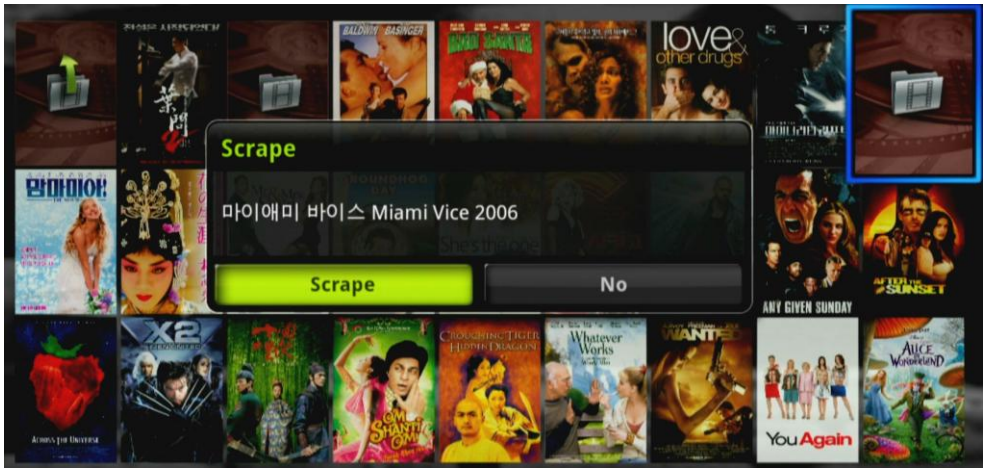


The following screen will appear when start scraping.



The scraping will be performed based on the file name, so there can be a chance the file name is not correct or not good enough. In this case, scraping can be tried again on the same file. The dialog box will be pop-up to enter or revise the file name to scrape. Click the dialog box with mouse to bring the virtual keyboard, so the scraping file name can be changed.

Press *<DOWN>* button on remote or click *<SCRAPE>* button on the dialog to restart the scraping.



※ It's quite tedious to do the same things on all movies. There is a menu items to simplify those jobs. <Scrape Advanced> will run on the background since it will take quite long time to do the scraping. Movie can be playback still while the background job is running.

Scrape All: Ignore previous scraping results, and restart scraping for all movies.

Smart Scrape: Find not scraped files and start scraping.

Scrape Files in the folder: Scrape all the files on the designated folder.

※ <Scrape files in the folder> is the only available item at the DEVICE mode.

11.6 Synopsis Screen

The scraping consists of two steps. One is getting the movie poster, the other is getting the filmography including synopsis of the movie. If scraping is successful, the following screen will come out as a next when the poster is selected.

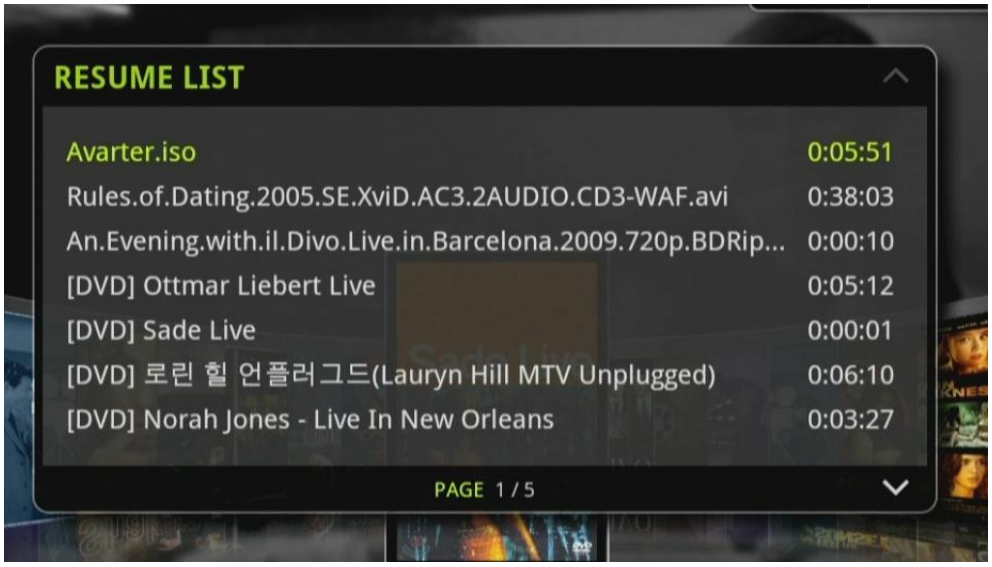
It shows a synopsis, running time, release year, genre, director and actors.

The Cell
Catharine Deane is a psychotherapist who is part of a revolutionary new treatment which allows her mind to literally enter the mind of her patients. Her experience in this method takes an unexpected turn when an FBI agent comes to ask for a desperate favour. They had just tracked down a notorious serial killer, Carl Stargher, whose MO is to abduct women one at a time and place them in a secret area where they are kept for about 40 hours until they are slowly drowned. Unfortunately, the killer has fallen into an ...
RUNTIME
109
RELEASE
2000-08-17
GENRE
Fantasy, Sci-Fi, Thriller
DIRECTOR
Tarsem Singh
ACTORS
Jennifer Lopez
Vince Vaughn
R
1080p
MPEG-4 AAC
2
AVC
MKV
THE CELL
Rating
Resolution
Audio
Codec
Container
Play Button

The bottom side of the synopsis screen shows the additional movie information like rating, movie format & resolution and audio information. Click the "start "button on the synopsis screen or press "OK" button on remote to start playback movie.

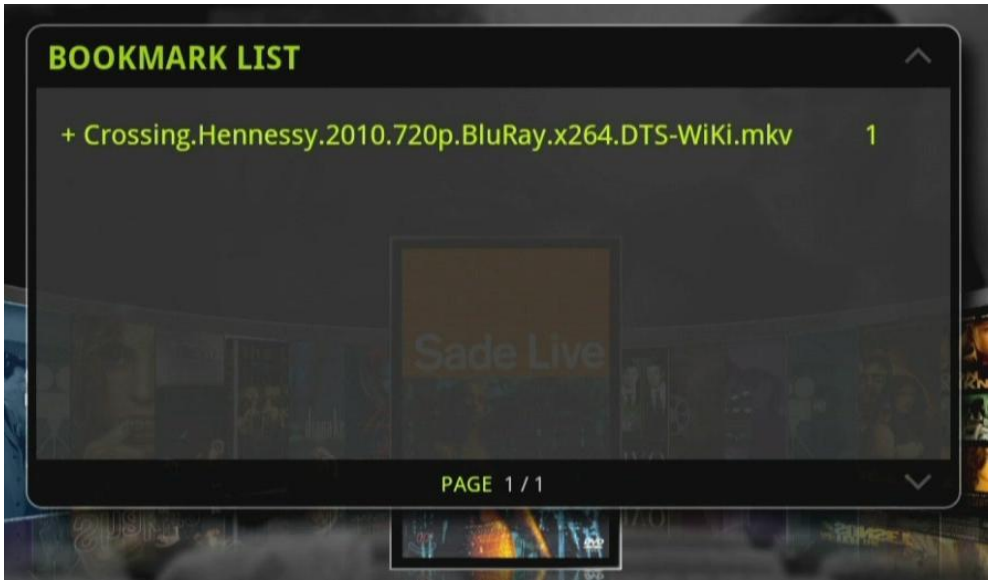
11.7 Resume and Bookmark

TizzBird provides RESUME function to the last playback position of movie, so it's not necessary to search it again manually. Press *<MENU>* button at MOVIE BROWSER and select <RESUME> menu to pop-up the resuming list. The resume list will appear like following image. Select wanted movie to resume to last playback position.


RESUME LIST
Avarter.iso 0:05:51
Rules.of.Dating.2005.SE.XviD.AC3.2AUDIO.CD3-WAF.avi 0:38:03
An.Evening.with.il.Divo.Live.in.Barcelona.2009.720p.BDRip... 0:00:10
[DVD] Ottmar Liebert Live 0:05:12
[DVD] Sade Live 0:00:01
[DVD] 로린 힐 언플러그드(Lauryn Hill MTV Unplugged) 0:06:10
[DVD] Norah Jones - Live In New Orleans 0:03:27
PAGE 1 / 5

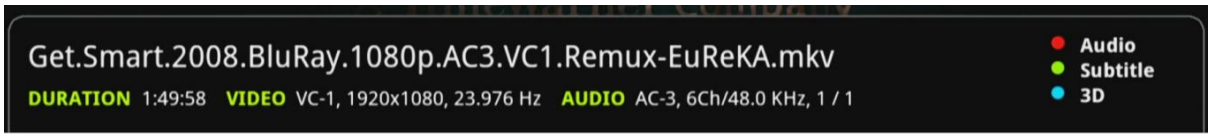
TizzBird also provides BOOKMARK function to memorize the scene position of movie. Press *<BOOKMARK>* button to memorize at wanted scene when playback the movie.

Press *<MENU>* button at MOVIE BROWSER and select *<BOOKMARK>* menu to pop-up the bookmark list. The bookmark list will appear like following image. Select wanted movie and position to resume to bookmarked position.



11.8 Movie Playback Menu

The information pane will appear at bottom side of screen as soon as movie starts like below picture.



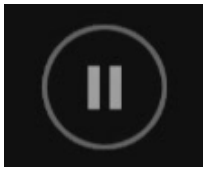
It will show title, running time, video and audio types. It also shows color buttons on the remote that can be used to control movie playback.

- RED color button: Select audio
- GREEN color button: Select and control subtitle parameters.
- BLUE color button: Select video parameters and 3D movie types.
- YELLOW color button: Show movie playback information.

TizzBird provides various control functions during movie playback. These functions include <TIME/CHAPTER SEARCH>, <INFO>, <SUBTITLE>, <AUDIO> and <VIDEO> settings. Most of functions can be activated by pressing *<MENU>* button. Press *<MENU>* button to pop-up the following menu screen.

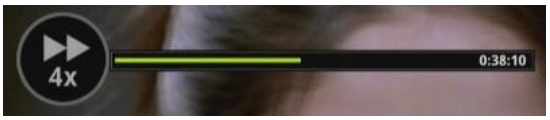
11.9 Playback Speed Control

TizzBird provides various playback speeds and skip controls during playback including PAUSE/ FAST-FORWARD/ REWIND/ PREVIOUS/ NEXT.



Press <PLAY/PAUSE> button to play or pause the playback.

Press <PREV> or <NEXT> button to skip to previous or next chapter.



Press <FF> button to fast-forward playback. It will change from 4x > 8x > 16x > 32x then again 4x if press continuously

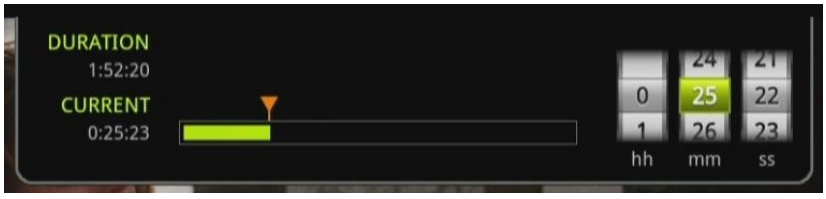
Press <REWIND> button to rewind playback. It will change -4x > -8x> …

11.10 Searching Menu (Time, Chapter, Bookmark)

Press *<MENU>* button and select following image to search the movie by time, chapter or bookmark.

Select <SEARCH> image.

The following screen will appear after selecting <SEARCH> menu. Playback time position can be changed by arrows keys at wheel user interface. The CHAPTER or BOOKMARK field can be also appeared if they are available.



Press <UP> or <DOWN> key to select time.

11.11 Playback Information Menu

Select <INFO> image at movie playback menu to confirm the movie playback information.

Select <INFO> image.

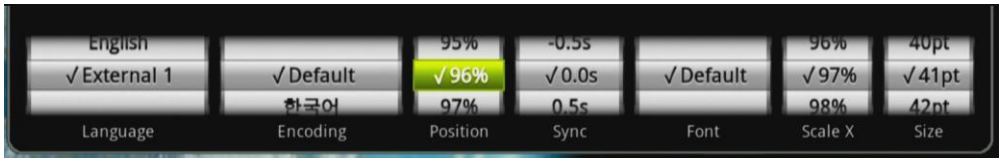
The movie information and current playback position will appear like following image.

11.12 Subtitle Menu

Select <SUBTITLE> image at movie playback menu to control the subtitle language, position, size, sync and font

Select <SUBTITLE> image.

The subtitle position would be lowest bottom side at 100% and would be top at 0%.

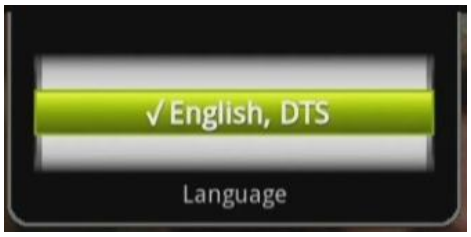


11.13 Audio Menu

Select <AUDIO> image at movie playback menu if multiple audio tracks are available.

Select <AUDIO> image.

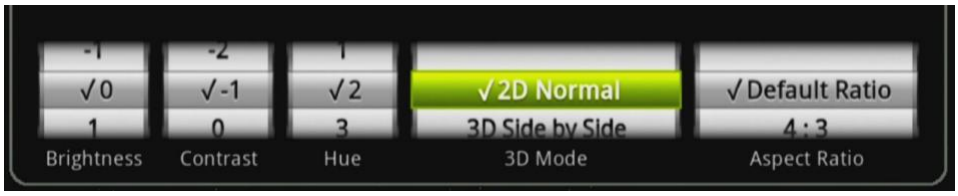
Press *<OK>* after selecting audio format or language audio to change the audio track.



11.14 Video Parameter Menu

Select <VIDEO PARAMETER> image at movie playback to change the video parameters like brightness, contrast or hue.

Press *<OK>* after selecting the value to apply.



11.15 Playback 3D Format Movies

TizzBird supports 3D files, if 3D display is available. The supported formats are SIDE-BY-SIDE and TOP-AND-BOTTOM.

- If file name contains 3D and SBS (or TNB) string, then it will turn TV into 3D mode automatically.
- If file name does not contain 3D string, but it contains actually 3D contents, then BLUE button can be pressed to switch the TV into 3D mode.
- The subtitle and menu will be switched 3D mode automatically as well.

11.16 Skip Playback Position

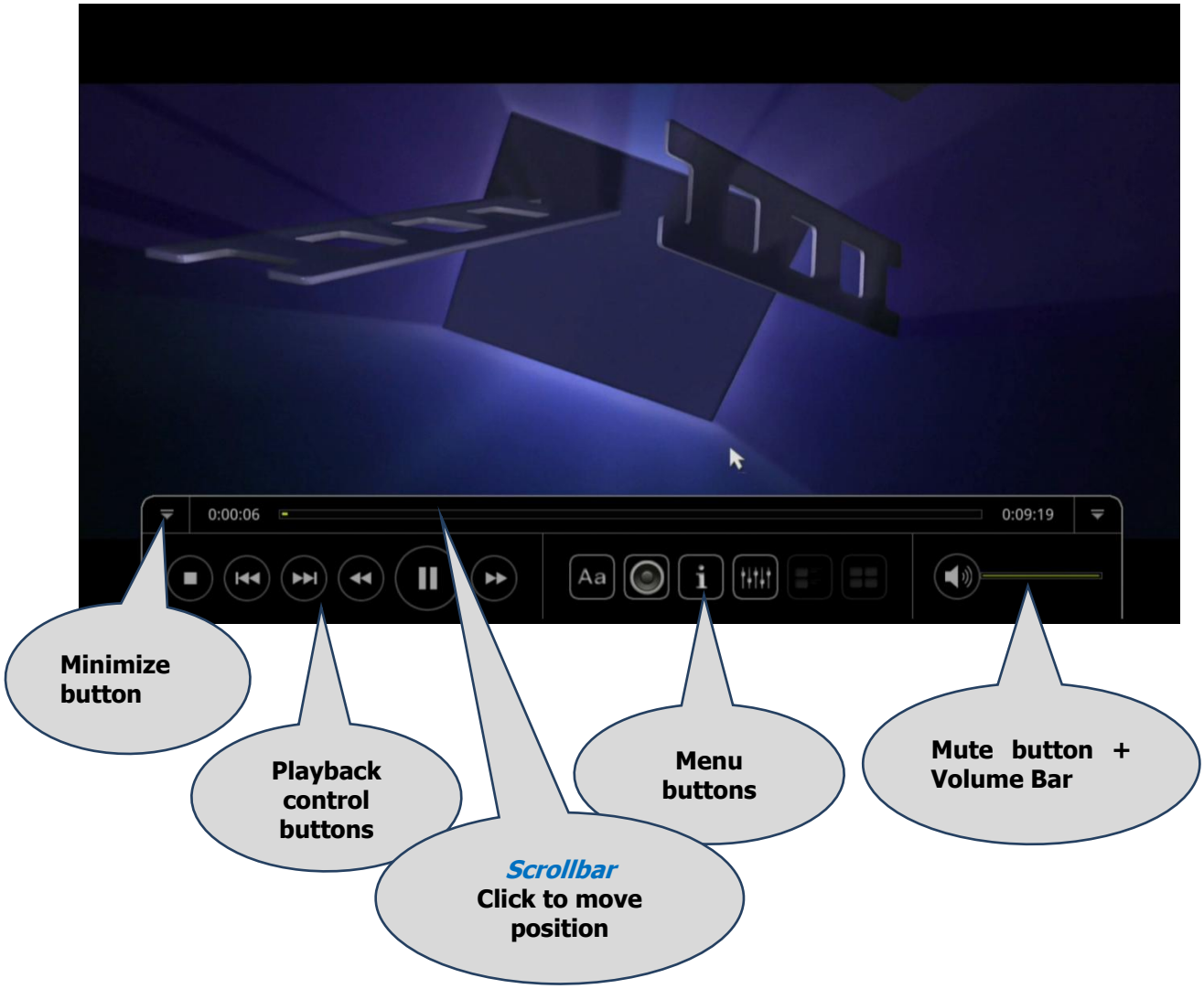
Press *<UP>* or *<DOWN>* key during movie playback to skip movie playback position. The skip duration can be configured at <SETTINGS BROWSER> → <MOVIE> → <SKIP DURATION>. This function is quite simple to use to skip to the wanted scene

. ***<UP>* button →** Skip forward

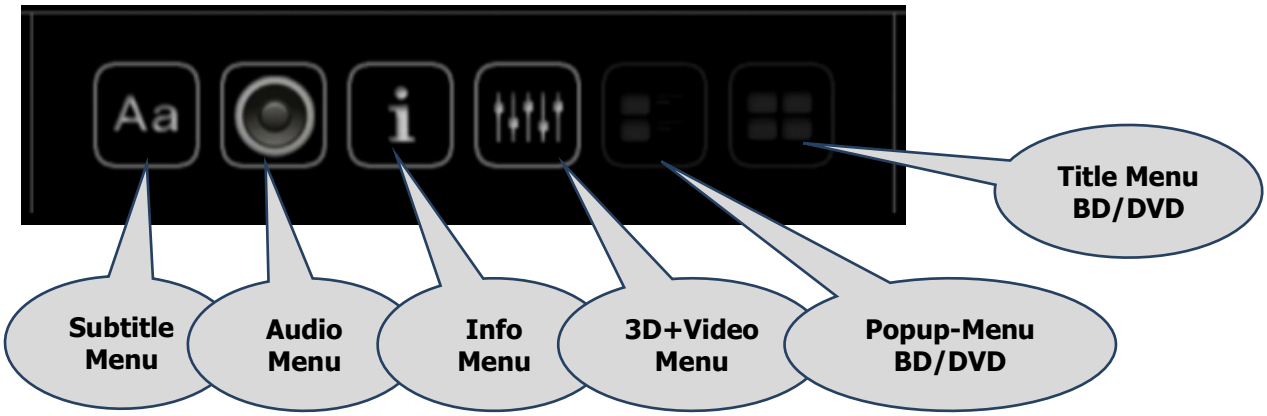
***<DOWN>* button →** Skip backward

11.17 Movie Playback Controller

The MOVIE PLAYBACK screen was changed as well to support the MOUSE. The CONTROLLER will pop up when *LEFT CLICK MOUSE* button.



The ***MENU BUTTON*** group consists of several menu buttons.

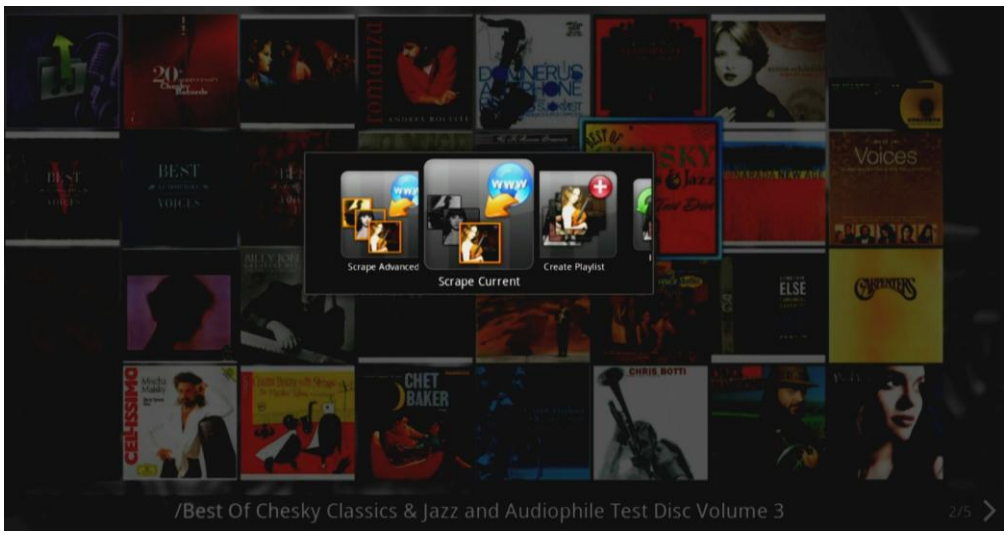


12 Listening Music

12.1 Music Browser

The following MUSIC BROWSER screen will appear if music files contain the album art at their tags. Press *<LEFT>* or *<RIGHT>* keys to move each direction. Keep pressing arrow keys to browsing continuously. The album-art screen will keep changing.

Press *<MENU>* button to bring <SEARCH> or <SCRAPE> menu just like MOVIE BROWSER.



12.2 Sorting Music

Music files at large capacity hard drive need to be sorted since it's easy to organize and search. TizzBird provides various "SORTING" functions based on the powerful Android database. Press GREEN color button on remote to sort by ALBUM, ARTIST, TITLE or YEAR. The following two images show SORT BY GENRE and SORT BY YEAR.

SORT BY GENRE

SORT BY YEAR

12.3 Music Playback Screen

Select album art to playback the selected music. The following image will appear.

Left pane: Shows album-art image, current playback status and position.

Right pane: Shows list of songs, song information and album-art thumbnail.

Press *<UP>* or *<DOWN>* arrow key to browse songs and press *<OK>* to start playback. Now playing music will be shown in YELLOW and selected music in LIGHT GREEN color. Press *<PREV>* or *<NEXT>* button to turn pages, if there are more pages on the song list,

12.4 Music Playback Menu

Available button when playback music is like this:

***<PLAY/PAUSE>* button**: play or pause the music

***<UP>* or *<DOWN>* button**: skip playback position designated at settings.

13 Watching Photo

13.1 Photo Browser

The following PHOTO BROWSER screen will appear when selecting PHOTO BROWSER. It's composed of superb folder thumbnails COVER-VIEW which is quite neat and intuitive. Each image shows thumbnails of photos that folder contains.

13.2 Photo Browsing Menu

Press *<MENU>* button to bring quick <SEARCH FOLDER> function.

13.3 Photo Wall

The following screen will appear after selecting one of the folder thumbnails. Photo wall can be used to select one of photos. Use arrow buttons to navigate the photos and press *<OK>* button to see the photo at full screen.

13.4 Photo Playback Screen

Photo slide show will start automatically, so next photos will keep appearing with transition effect. The various TRANSITION EFFECTS can be configured at <SETTINGS BROWSER> → <PHOTO>.

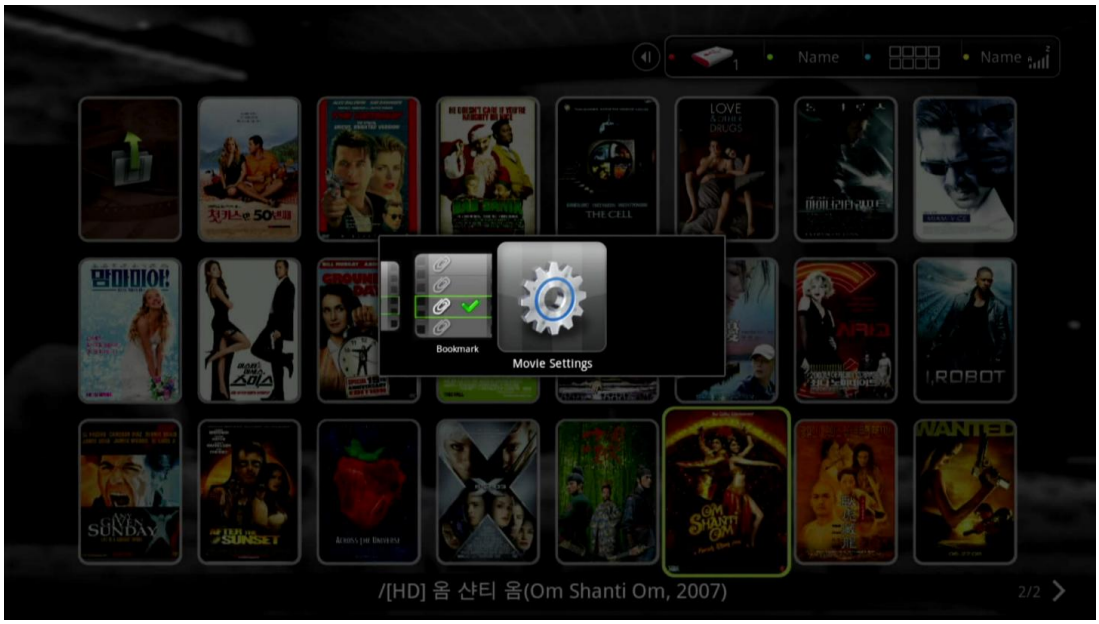
13.5 Slideshow Control

Slideshow can be controlled by arrow and <PLAY/PAUSE> buttons. Press <PLAY/PAUSE> button to pause or resume to playback. Use arrow keys to change the slide direction.

14 Posters, Album Art and Photo Arrangements

The arrangement of each browser and shape of each item can be configured at each browser. For example, you can change the number of items of movie browsers and shape of posters.

Press <Menu> button on the remote at Movie Browser. The <Movie Settings> Menu was added to configure the movie browser directly. This will bring the <Settings Browsers> → <Movie> directly.



You can configure the movie posters arrangements and shape of posters.

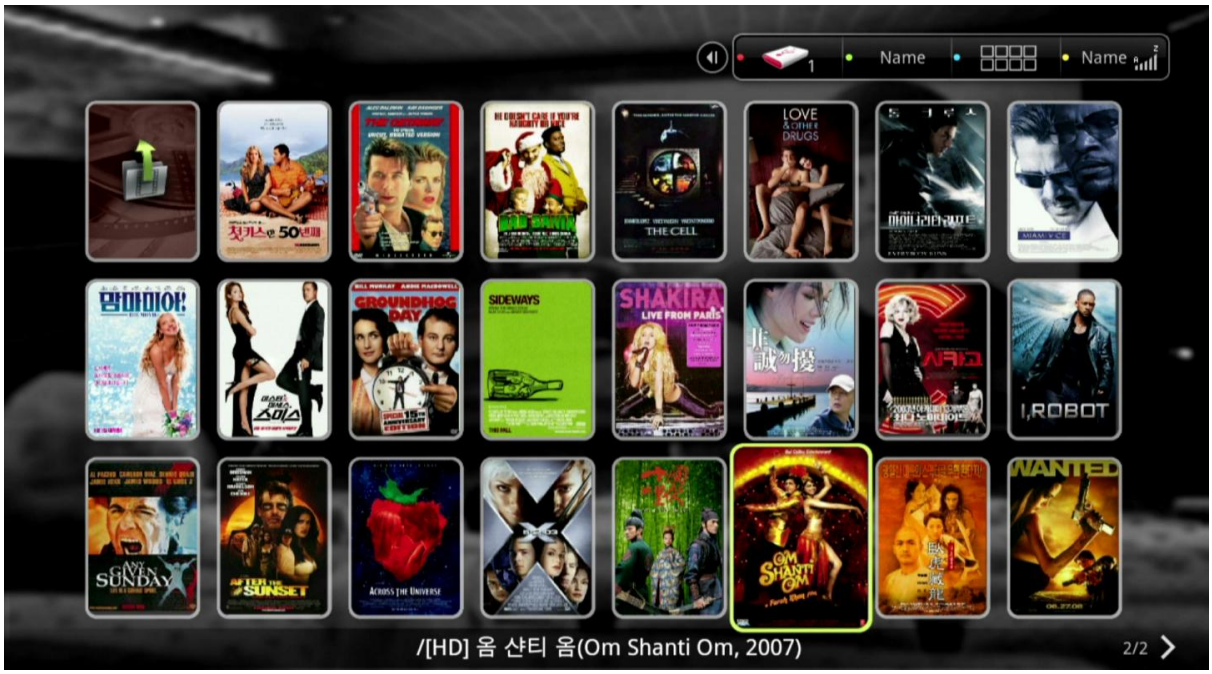
Press <Menu> button on the remote at Movie Browser. The <Movie Settings> Menu was added to configure the movie browser directly. This will bring the <Settings Browsers> → <Movie> at movie browser.

There are new setting items at PAGE2 of movie settings like above screen, which are <Browser

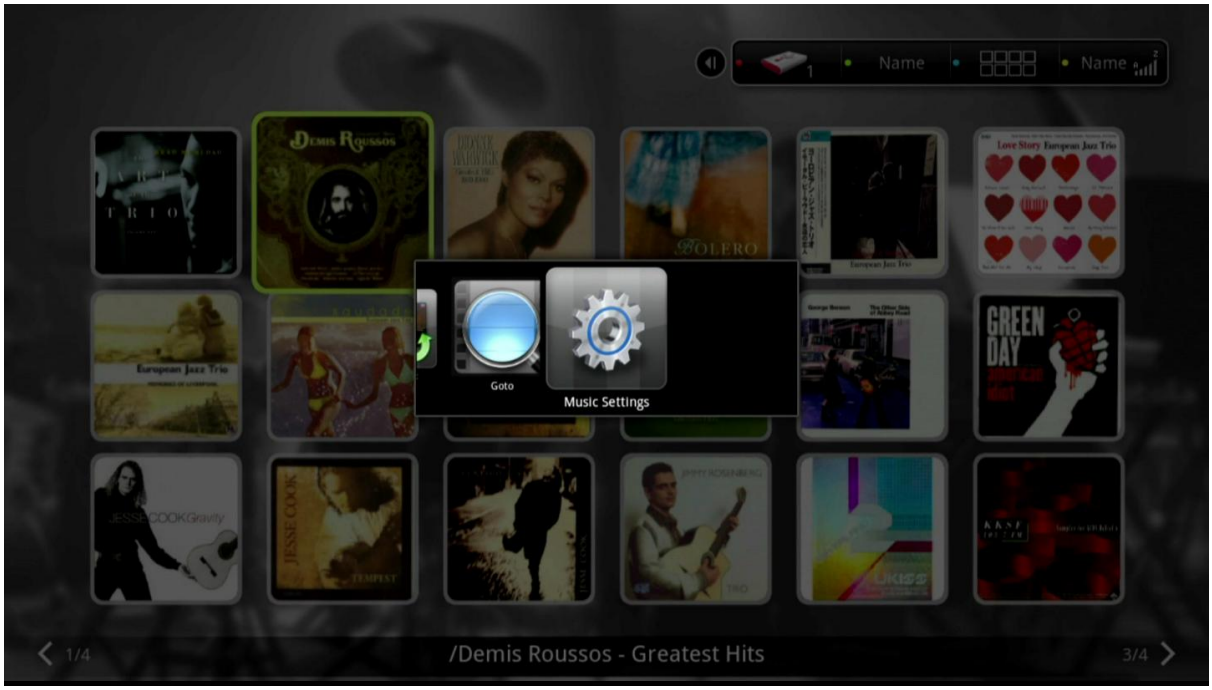
Mode> and <Browser Item Mode>. You can configure layouts of browsers at <Browser Mode> and configure shape of each item at <Browser Shape Mode>.

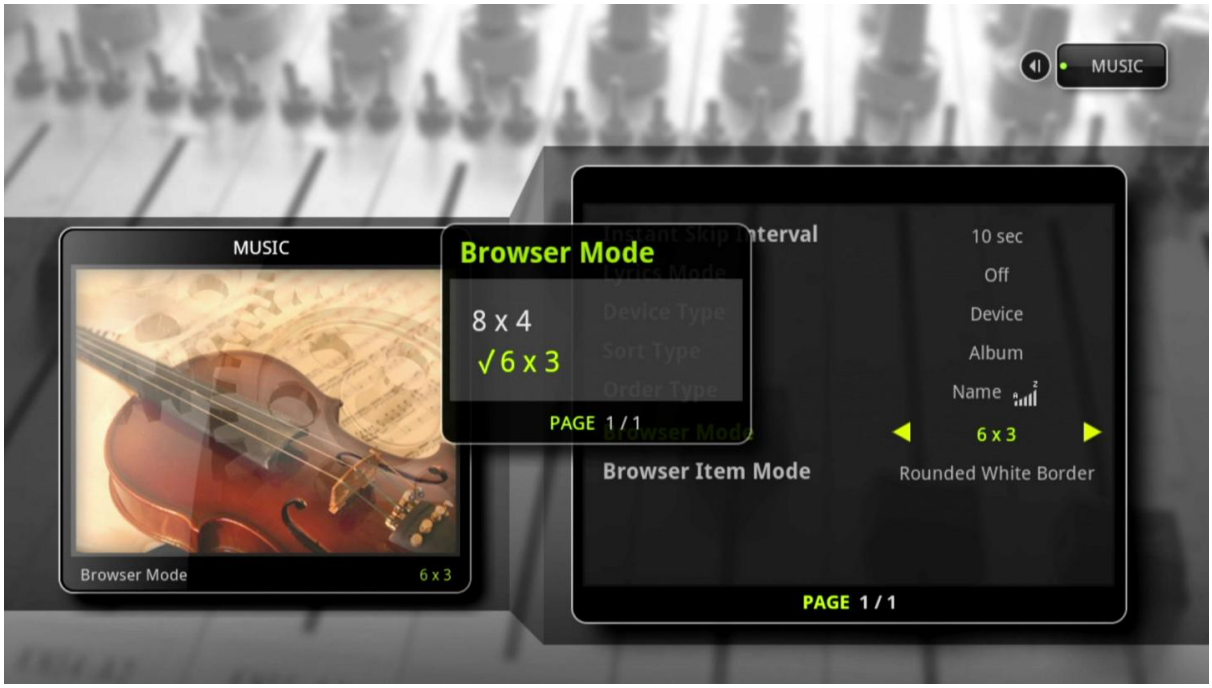
For example, the <Browser Item Mode> will bring you the following screen to configure the border type, border alpha value, width, radius and item alpha. Alpha is transparency rate.

For example, configure 8x3, rounded border and border width 3 will give you something like this movie browser.

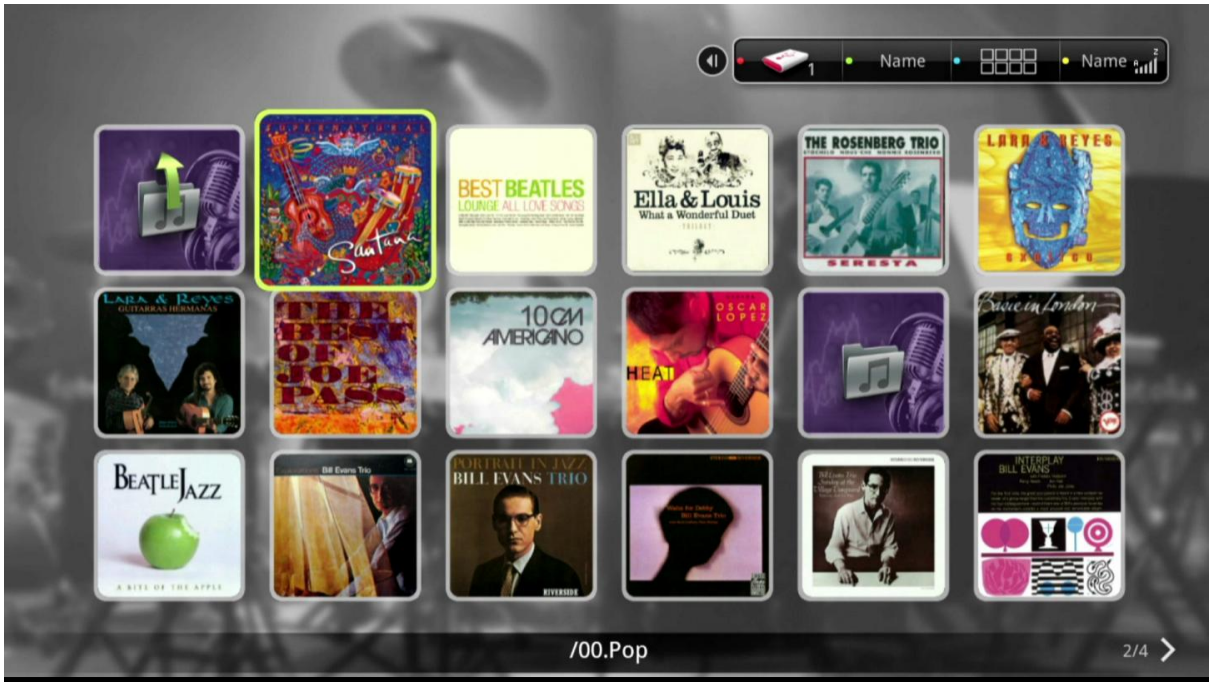


This kind of configuration is also possible at MUSIC and PHOTO BROWSER. Please notice the following screen-shots.





For example, configure 6x3, rounded border and border width 3 will give you something like this music browser.

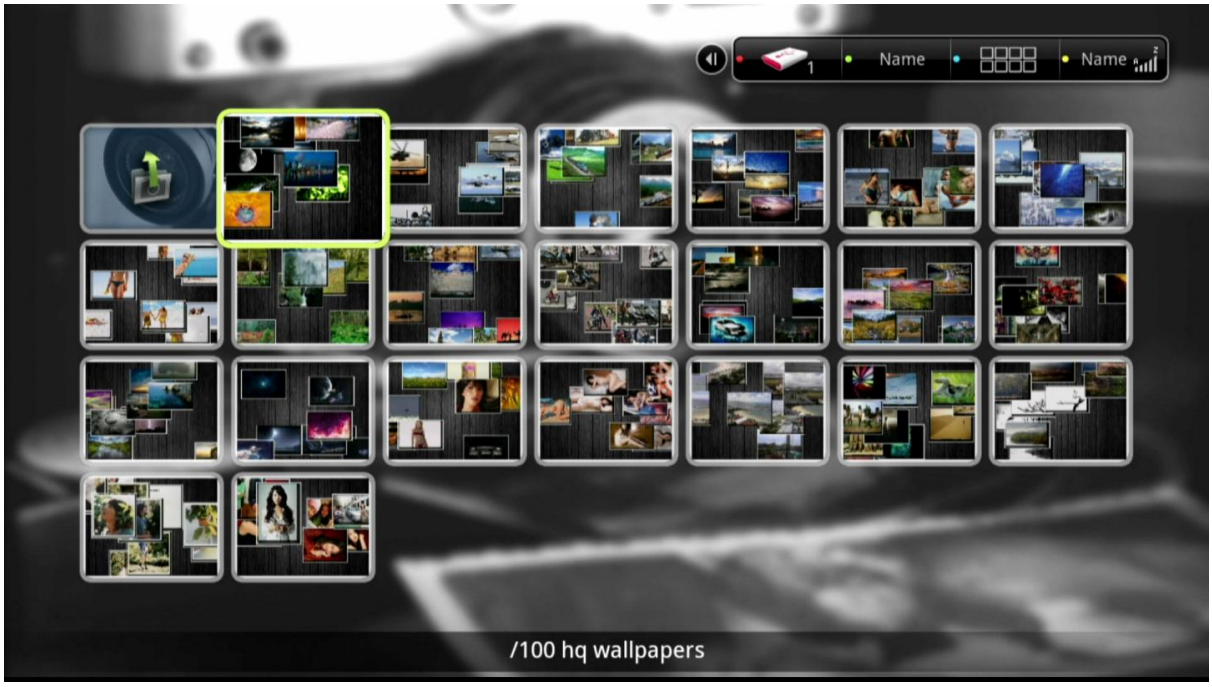


Here's the photo setting:

PHOTO
PHOTO
Browser Item Mode
Rounded White Border
Transition Effect
All
Slideshow Interval
7 sec
Slideshow Mode
Sequential
Device Type
Device
Sort Type
Folder
Order Type
Name
Browser Mode
7 x 4
Browser Item Mode
Rounded White Border
Wallpaper Mode
Fullscreen
PAGE 1 / 2

Rectangular White Border
√ Rounded White Border
Item Mode
79
√80
81
Border alpha
2
√3
4
Border width
7
√8
9
Round radius
79
√80
81
Item alpha

For example, configure 7x3, rounded border and border width 3 will give you something like this photo browser.

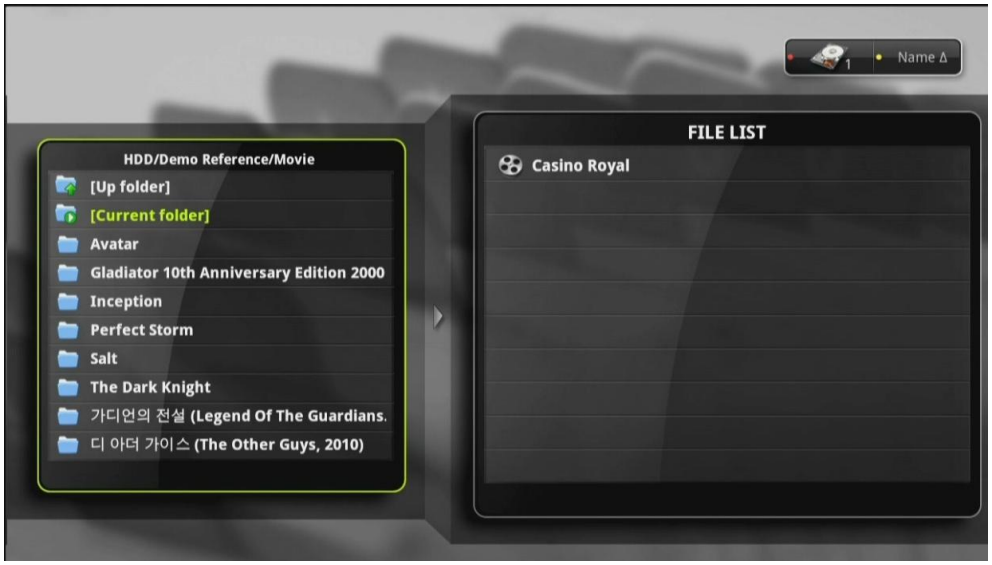


15 Using File Browser

15.1 File Browser Screen

The following screen will appear when selecting FILE BROWSER. This is quite similar browser user interface that legacy media players provided before. Folder or file based browsing is possible on this browser, and selecting and playback the file directly.

The left pane is FOLDER PANE, and the right pane is FILE PANE.



Folders can be browsed by arrow keys and press *<OK>* button to select that folder. The files will be appeared on the right pane if that folder contains the files. The GREEN outline on the pane means it's selected. Press *<RIGHT>* arrow button to move the FILE PANE and select the file. Press *<OK>* to select and start playback that file.

15.2 Selecting Device at File Browser

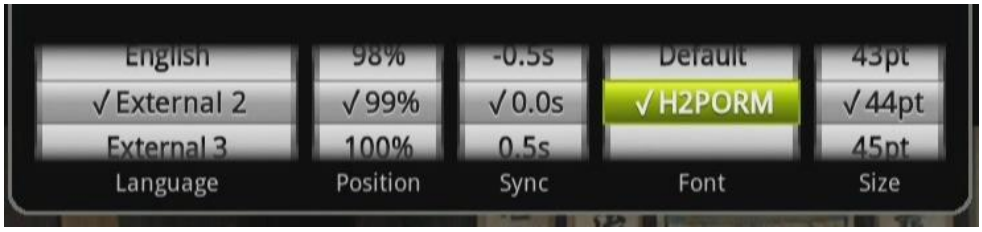
External USB, internal HDD storage device, or network drive can be selected at FILE BROWSER. Press <RED> button on the remote and the device drop-down list will pop-up like following image. Use *<UP>* or *<DOWN>* arrow key to browse devices. Choose one of them then press *<OK>* to select it.

15.3 Register Subtitle Font File

Subtitle font file can be selected at file browser. Copy or move the font file (true-type font file - .TTF extension) to the USB drive or internal HDD from PC, then connect the drive to TizzBird. Press <RED> button to select drive and navigate into the folder that font file was copied. The font file will appear like the following image.

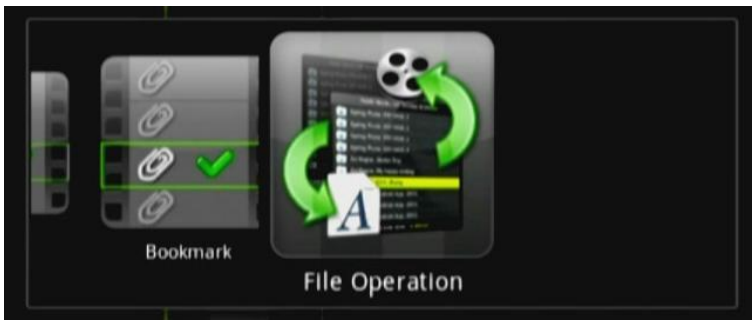
Select one of the font file and press *<OK>* button to register. Several font files can be registered at once.

Registered font files will appear at movie playback screen menu. Press *<MENU>* button and choose <SUBTITLE> icon.



15.4 Using File Operation

Rev 1.12 firmware provides the "File Operation" capability which enables COPY, MOVE, DELETE, RENAME and NEW FOLDER functions. Press "MENU" button on the remote then select the "File Operation" ICON at the pop-up window to enter this mode.



This will bring the following screen.

The left pane is source window and the right pane is target window. The "File Operation" will function from left pane to right pane. The following remote buttons can be used.

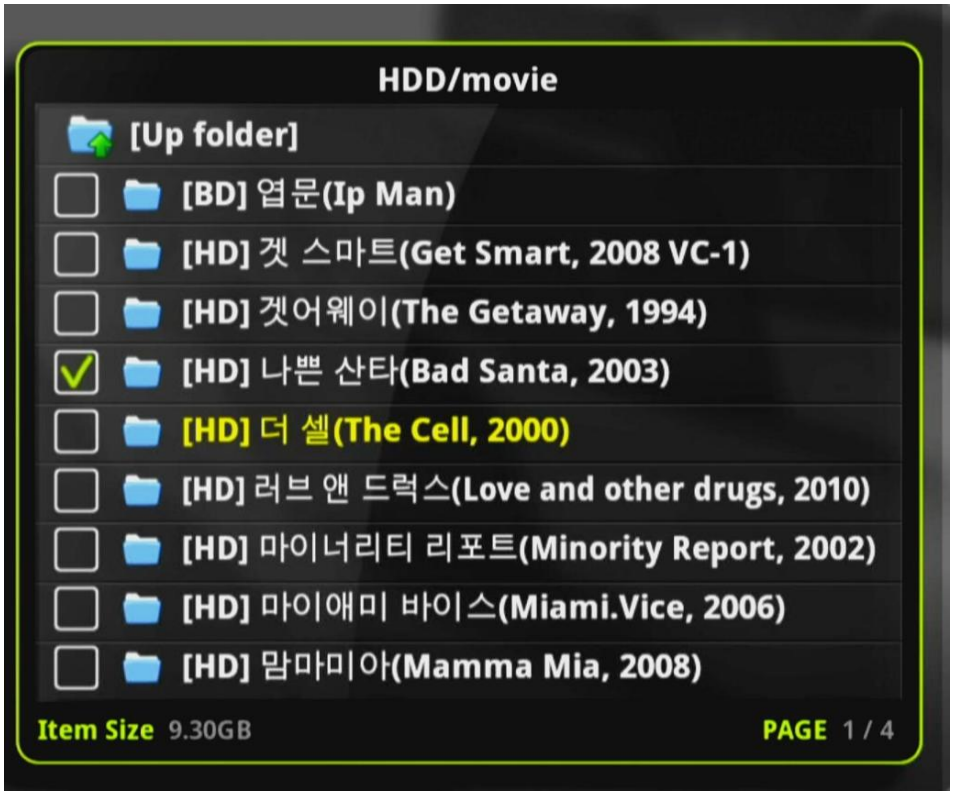
OK button → Browse and enter the folder.

Bookmark button → Select the item to operate.

Menu button → Pop-up the FILE OPERATING ICONs.

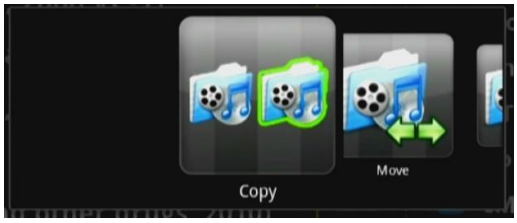
Please use left or right arrow button to move left or right pane. The RED button can be used to select the device at each pane. This RED button enables the selection of source or target device at each pane.

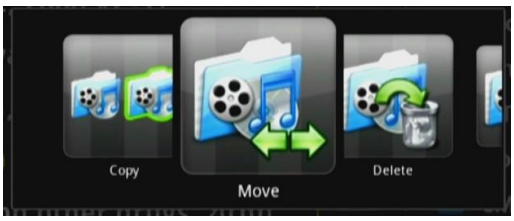
Pressing BOOKMARK button will check the selected item like below picture. The check icon will appear on the small box at left side of item.


HDD/movie
[Up folder]
[BD] 엽문(Ip Man)
[HD] 겟 스마트(Get Smart, 2008 VC-1)
[HD] 겟어웨이(The Getaway, 1994)
[HD] 나쁜 산타(Bad Santa, 2003)
[HD] 더 셀(The Cell, 2000)
[HD] 러브 앤 드럭스(Love and other drugs, 2010)
[HD] 마이너리티 리포트(Minority Report, 2002)
[HD] 마이애미 바이스(Miami.Vice, 2006)
[HD] 맘마미아(Mamma Mia, 2008)
Item Size 9.30GB
PAGE 1 / 4

The total size of selected item will be also calculated whenever BOOKMARK button is pressed. It will take some time if there are many items at selected folder.

Pressing MENU button will bring the following POP-UP menu to select the function. The *COPY, MOVE, DELETE, SELECT ALL, CANCEL, RENAME, NEW FOLDER* can be selected.





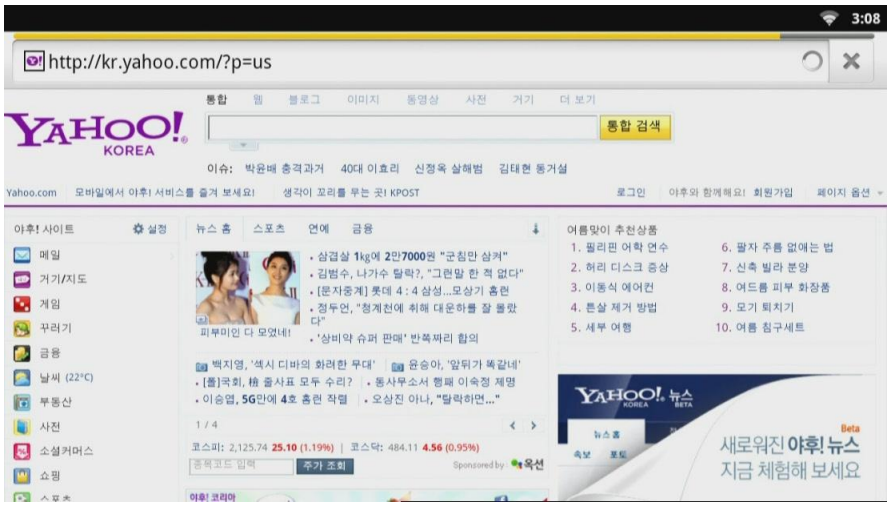
The *COPY* or *MOVE* operation will be performed always from LEFT PANE to RIGHT PANE. The *DELETE, RENAME, SELECT ALL* and *CANCEL* will be performed always at LEFT PANE. The *NEW FOLDER* will be performed on selected pane. Please select the wanted icon to execute the operation.

16 Connecting Internet

16.1 Execute Internet Browser

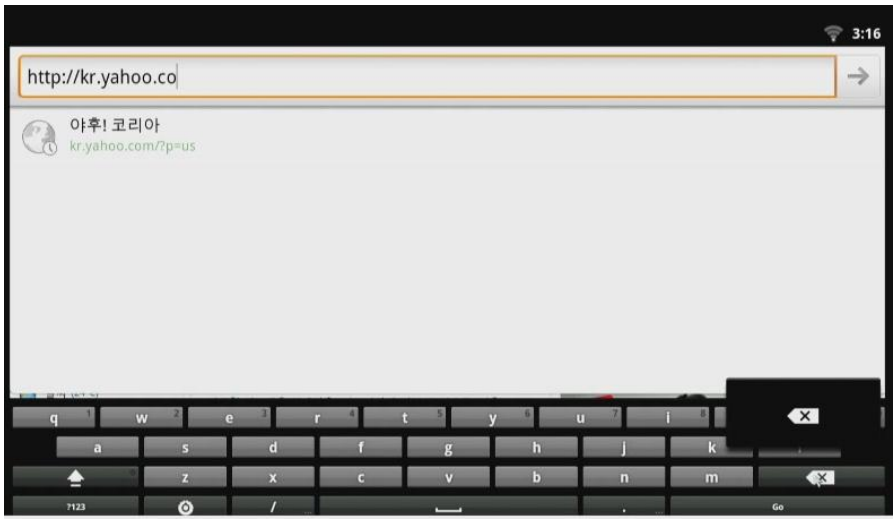
Web browser will appear if WEB BROWSER was selected at HOME SCREEN and network was connected like following image.

※ Using mouse is highly recommended at WEB BROWSING. Wireless RF or USB mouse can be used. Web address or other information can be entered thru virtual keyboard with mouse. Wanted article or link can be clicked with mouse as well.



16.2 Control Internet Browser

Press <BACK> button on remote or click mouse right button to move back to the previous screen. Press *<MENU>* button on the remote to change the home page and register at there.



17 Install and Execute Application

17.1 Move applications at Android Phone to TizzBird

The applications on the Android smart phone can be installed on this unit. The procedures are like this.

1) Download or move the applications on the Android smart phone at USB flash drive.

- Move the applications on the smart phone to SD card. This can be done by Android application like "App Monster". This kind of application let user backup their APP to SD card.

- Move the APP at SD card to USB flash drive. Attach the USB flash drive to the unit.

- Run FILE BROWSER at HOME SCREEN, and select the application that you want to install.

The APP at smart phone may have problems when installing or executing since it requires GPS, PHONE or TOUCH function. Or it always shows in portrait mode, since the application is just intended to use on phone.

※ Some APP requires specially touch function. In this case, mouse should be used. So using mouse is highly recommended when running applications.

17.2 Execute Application

The following image will appear when running APP BROWSER at home screen.

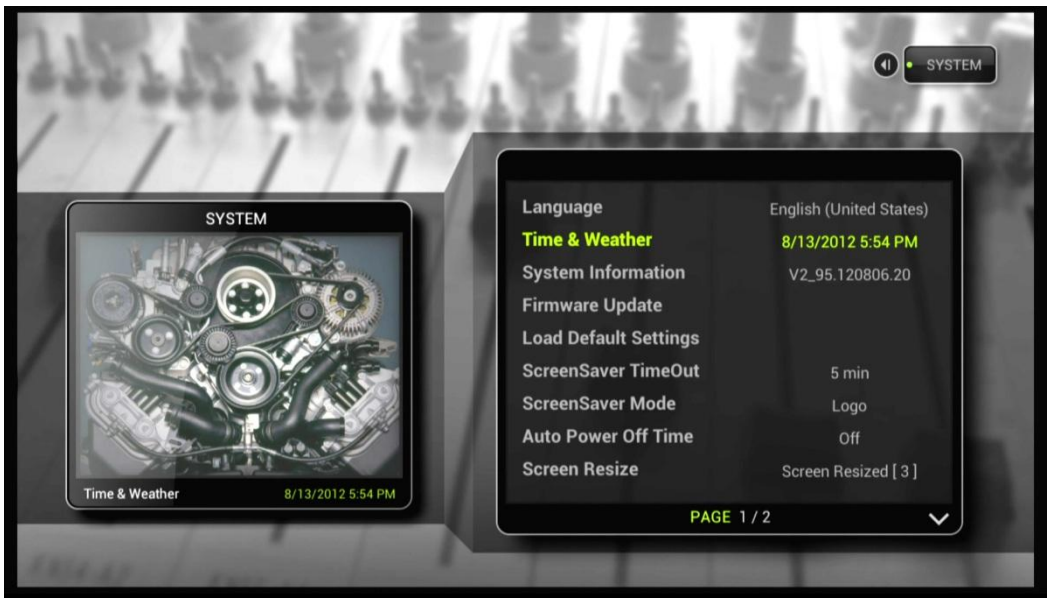
Use arrow buttons to browse the application and press *<OK>* button to execute it.

18 Settings

Various set-ups can be configured at SETTINGS BROWSER.

18.1 System

Menu language, date & time, system information, firmware information and update can be set-up at this menu.



Language → Select menu language. Press *<OK>* to bring the pop-up.

Time & Weather → Set up the time & weather location, manually or automatically.

Network should be configured and connected to get time & weather location automatically.

System Information → Show current system information like firmware version.

Firmware Update → Update the firmware.

Load Default Settings → Clear the previous settings and get back to the default settings

Screen Saver Time-Out → Set up the screen saver time-out.

Screen Saver Mode → Configure the screen saver icon or off the saver.

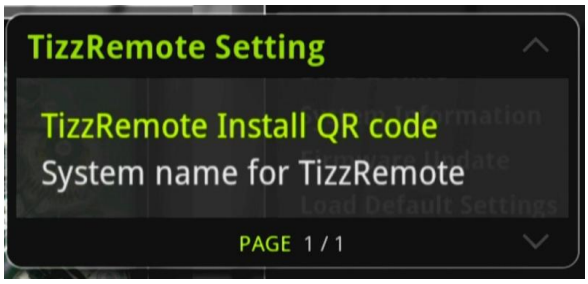
Auto Power Off Time → Configure automatic power off time

Screen Resize → Configure the size of graphic user interface screen.

TizzRemote Setting → Setup the TizzRemote by QR code and setup the System name for TizzRemote searching.

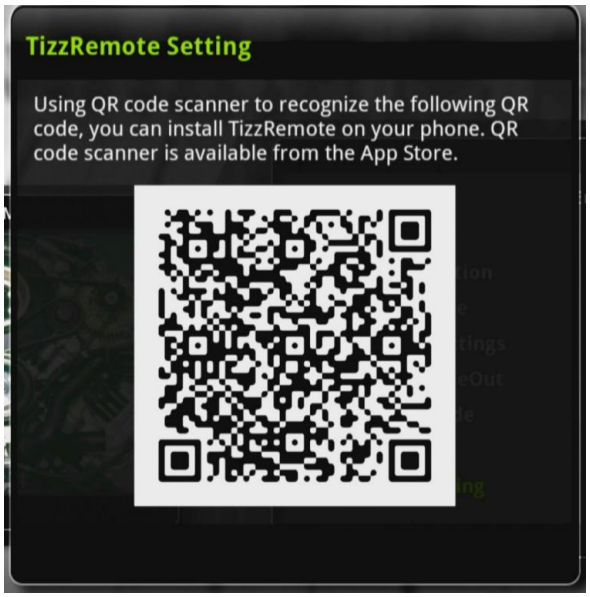
Next page contains more system settings.

TizzRemote Setting → Setup the TizzRemote by QR code and setup the System name for TizzRemote searching.



The TizzRemote™ is the remote application for TizzBird which can replace keyboard, mouse and keyboard.

There are two methods to install the TizzRemote™. The TizzRemote™ itself is already on the Google Market, so you can directly download it at your smart phone. The other way is using the QR code. If you select the above item at the dialog box, the following dialog box will pop-up.

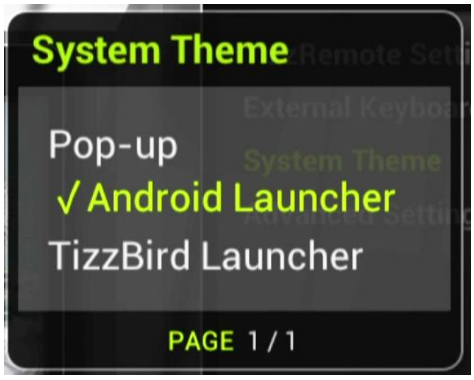

TizzRemote Setting
Using QR code scanner to recognize the following QR code, you can install TizzRemote on your phone. QR code scanner is available from the App Store.

If you have QR code scanner on your smart phone, then scan this QR code with it, the

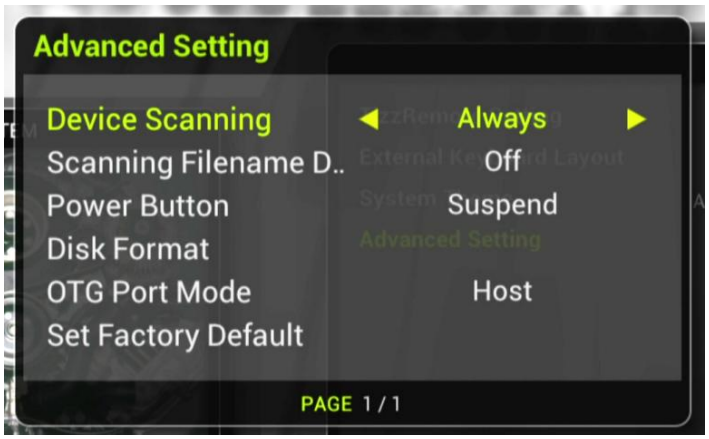
TizzRemote™ APP will be automatically download and installed on your smart phone.

External Kbd Layout → Select between QWERTY or AZERTY type key board.

System Theme → Select launcher between TizzBird theme and Android theme



Advanced Setting → Show advanced (not for casual use) setting.



Device Scanning → Select between scanning device "Always", "New Device Only" and "Never". It will determine the scanner for database will be applied always or new device only or never.

Scanning Filename Display → It will determine display file name during device scanning or not.

Power Button → Select between "Power Off" and "Suspend" when pressing power button. If "Power Off" selected, the system will completely be powered off when POWER button pressed. System will boot up completely from initial stage when next POWER-ON. (COLD-BOOT)

Disk Format → Format the attached hard disk drive.

OTG Port Mode → Select mode of OTG port (the USB port comes with Y-cable). The OTG port can be configured as "Host" (normal USB port) or "UMS" (flash drive can be accessible by PC) or "Debug" (Can be used Android debug mode).

Set Factory Default → Reset the internal data to original one from factory. It will reset the TV output resolution, internal settings and database. It will preserve the application you installed, though.

18.2 Audio and Visual

Video Output → Select video output port.

Resolution → Select resolution of the video output.

Native Frame Rate → Turn On/Off of original frame rate of the source

Cinema Original (24p) → *Enable/ Disable cinema frame rate*

TV Original (1080i 60Hz) → *Enable/ Disable TV frame rate.*

Audio Output → Select audio output port and format

Analog (PCM) → *Audio will output as decoded PCM data*

Digital → *Audio will output as raw data*

For HDMI "Digital", the format of audio can be On/Off for each format.

[Configuration for each format]

※ In "Digital (Compressed)" output mode, each format (AC3/ DTS/ AAC/ HD-Audio) can be configured as On/Off independently. It's because the capability of connected audio device is quite different.

Dynamic Range Control → Controlling dynamic range or not for audio

Brightness, Contrast, Hue → Control each video parameter value

18.3 Movie

Subtitle Language → Select subtitle language.

Subtitle Setting → Select size, position, font, color of subtitle. Please refer 10.10.

Resume → Select resume screen pop-up method. "On" → Automatic resume without asking. "Off" → Always startup without resuming. Pop-up → Pop window up to ask resume or not.

Instant Skip Interval → Select instant skip interval. Instant skip will occur when pressing *<UP>* or *<DOWN>* key at movie playback.

Sort Type → Select sorting type of movie.

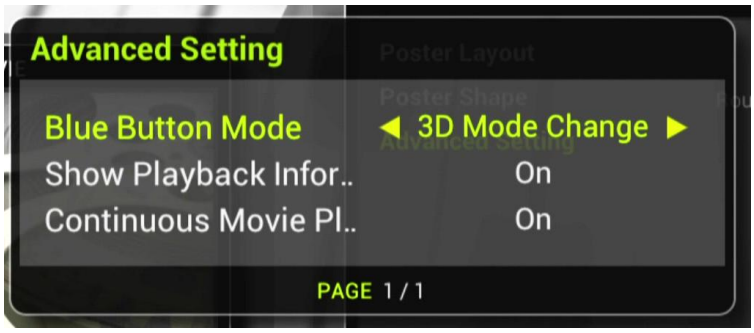
Order Type → Select ordering type of movie browser.

Movie Scraper → Select movie scraping data base.

The next page contains more configurations for movie.

Poster layout and Poster Shape → Please refer to chapter 15.

Advanced setting contains more special settings for movie.



Blue Button Mode → Blue color button on remote can be configured "3D mode change" button or "Repeat mode" button.

Show Playback Information → Turn on/off the information window when movie start-up.

Continuous Movie Playback → Turn on/off successive movie playback, if any.

18.4 Music

Instant Skip Interval → Select instant skip interval. Instant skip will occur when pressing *<UP>* or *<DOWN>* key at movie playback.

Lyric Mode → Turn on/ off or automatic if lyrics are available

Sort Type → Select sorting type of music.

Order Type → Select ordering type of music browser.

Album Jacket Layout & Shape → Please refer to chapter 15.

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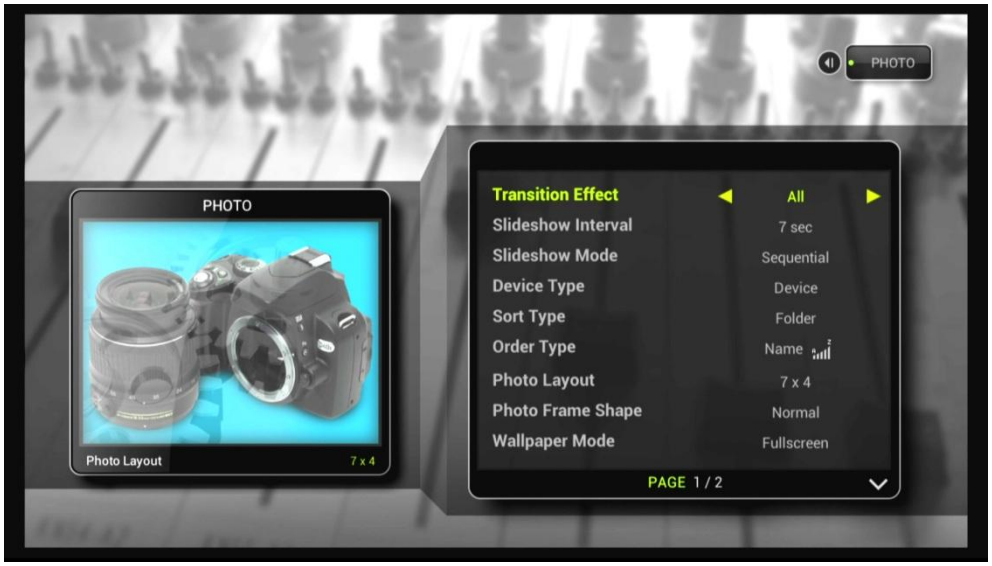
18.5 Photo



Transition Effect → Select transition effects of slideshow.

Slideshow Interval → Select transition interval of slideshow.

Slideshow Mode → Select showing order of slideshow.

Sort Type → Select sorting type of photos.

Order Type → Select ordering type of photos.

Photo Frame Layout & Shape → Please refer to chapter 15.

Wallpaper Mode → Keep the aspect ratio or stretching to "Fullscreen"

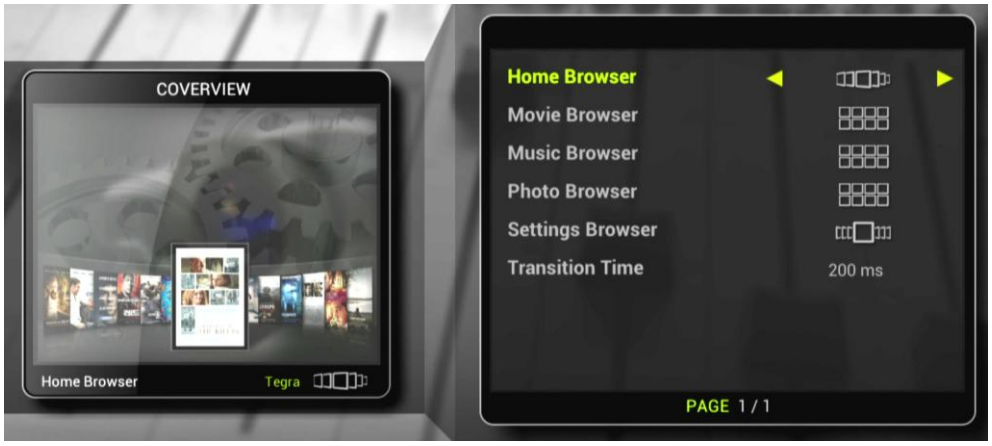
Restore wallpaper → Restore default wallpaper if background was changed.

Transition Effect

18.6 Network

Wi-Fi Connection →	Turn On/Off the Wi-Fi connection
Wi-Fi Setting →	Select Wi-Fi Access Point and configure the SSID and password
Network Server … →	Please see chapter 20 and 20.1.5 for configuration
DLNA →	Turn On/Off the DLNA. See chapter 21 for usage of DLNA.
YouTube Cache Size →	Determine the cache size for YouTube real-time streaming.
Network Information →	Show current connected network information.

18.7 Cover-View



This page only shows the current setting of Cover-View style of each browser. You cannot change the style in this model.

19 Connecting Network Server or NAS

This device provides powerful network browsing and connection capability from Rev 1.12 firmware. This includes multiple mountings of network drives for both SAMBA and NFS. The high performance NFS server software for PC, the **TizzNFS** will be also provided thru TizzBird WEB-site

19.1 Network connection using NFS

The NFS (Network File System) is a simple but powerful networking file system originally created by Sun Microsystems™. The NFS enables high performance file sharing between network devices, so it's most suitable for multimedia file playback via network.

The following section explains how to connect the shared PC folders using NFS server application or NAS (Network Attached Storage) which runs NFS server.

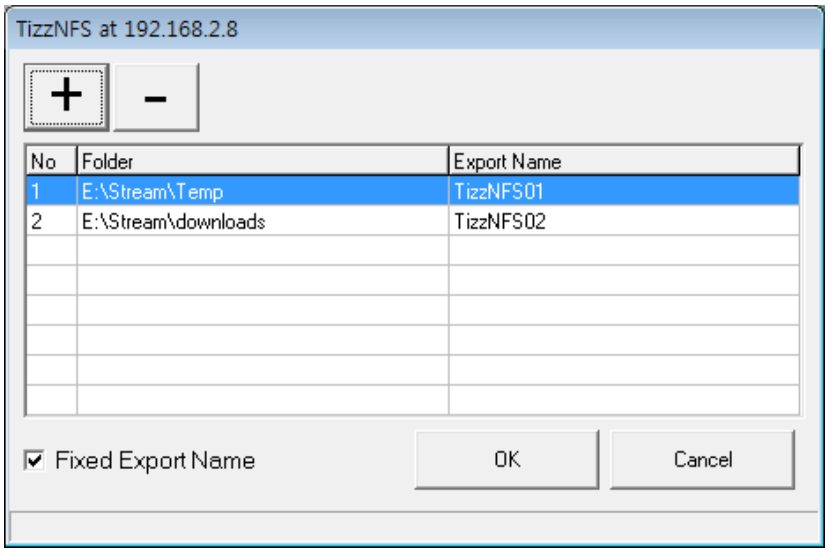
19.1.1 Downloading TizzNFS Server

Please download the "**TizzNFS**" server at Internet at the PC. Please visit our WEB-site (http://www.tizzbird.com) to download the TizzNFS program. Please install it after downloading it. The TizzNFS has following features.

- Runs on Windows™ XP/ Vista/ 7 (both 32 bit and 64bit)
- Simple and intuitive user interface.
- Enables sharing multiple folders thru EXPORT function.
- Reliable and high performance operation
- Simple or complex EXPORT name can be selectable.
- Supports NFS2 and NFS3 protocol completely.

19.1.2 Executing TizzNFS Server & Configuration

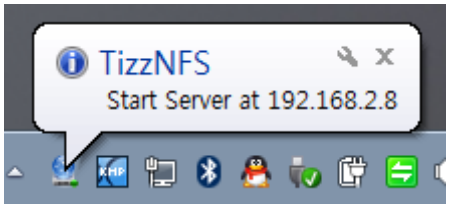
Execute the TizzNFS. The TizzNFS icon will appear on Task Bar. Click the icon and select "Settings" menu item.



Please press button to share the folder. The folder selecting dialog box will appear so the wanted folder can be selected.

Please repeat this procedure to select all other desirable folders to share. Please press button to unselect the folder, after clicking the row of unwanted folder at the dialog box.

The balloon help will pop-up when pressing OK button like below picture.



The TizzNFS will automatically run whenever log-on the PC, so shared folders will be maintained.

19.1.3 Downloading other NFS Server

Please download the "freeNFS" or "Allegro" NFS server at Internet at the PC. The "freeNFS" and "Allegro" NFS server was confirmed by TizzBird.

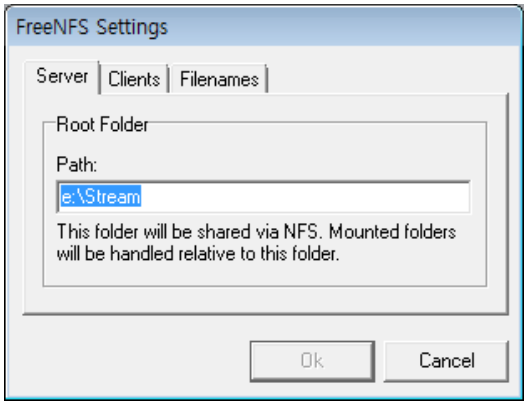
The "freeNFS" software can be downloadable at following URL:

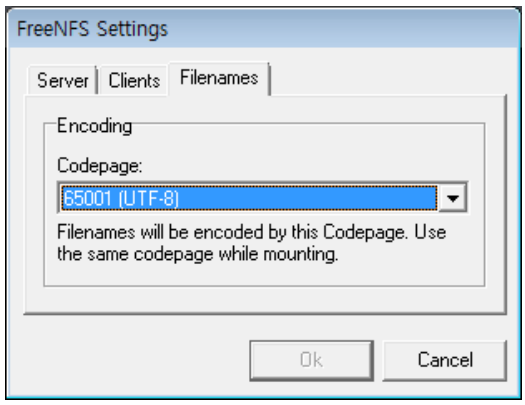
http://sourceforge.net/projects/freenfs/files/FreeNFS.exe/download

FreeNFS can be executed without specific installation.

19.1.4 Executing freeNFS Server & Configuration

Execute the freeNFS. The freeNFS icon will appear on Task Bar. Right mouse click the icon and select "Settings" menu item.





Please enter shared folder name at "Path" of "Server" Tab like above picture.

Please make sure that selecting "65001 (UTF-8)" at the "Codepage" of "Filennames" Tab.

19.1.5 Connecting NFS Server at Device

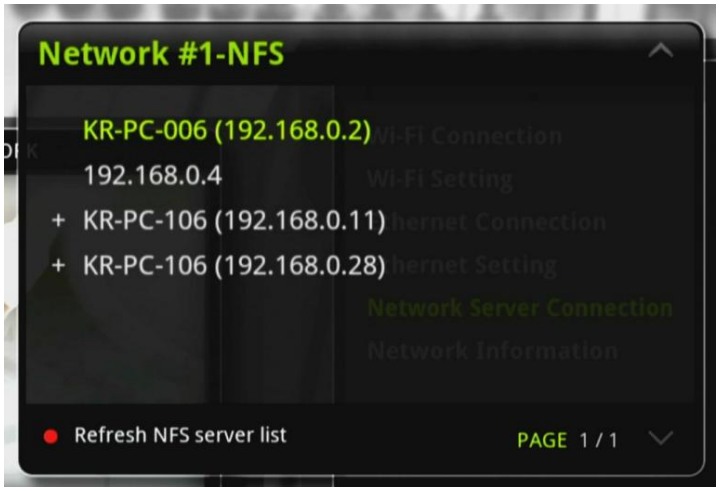
Select <Settings Browser → Network → Network Server Connection". This will bring the following dialog box.

Network Server Connection
Network #1 [NFS, Connected]
Network #2 [Connecting]
Network #3 [Connecting]
Network #4 [Disconnected]
PAGE 1 / 1

Up to 4 network servers can be connected at this version, and the number of connectable server will be increased at next version.

Please select one of the network drive number then press OK. This will bring the following dialog box.

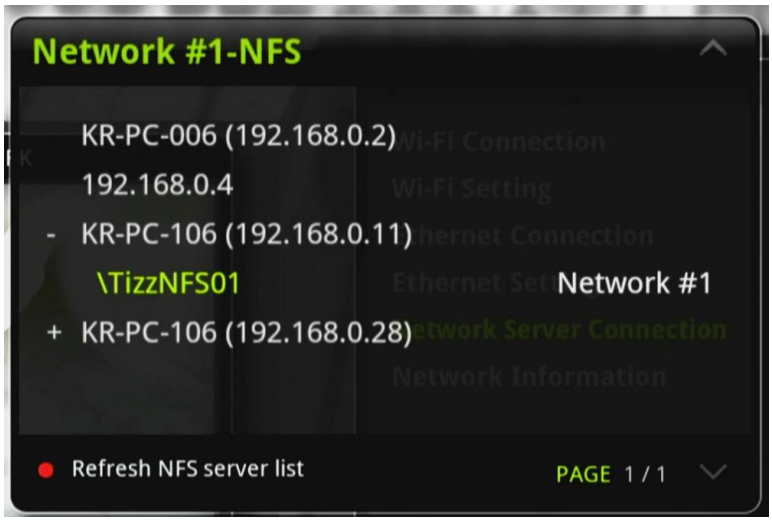
Please choose NFS. This will start the SERVER BROWSING dialog box and start browsing of available NFS server at the local network.



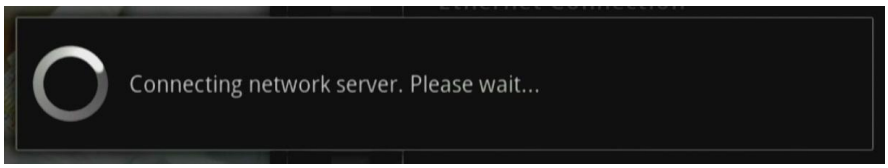
The available NFS servers will appear with names or IP addresses. The "+" sign on the left side of server name means it has exported folders. There can be no "+" sign server which is not exporting the EXPORT NAMES.

If PC runs Windows OS, the PC name can also appear like above picture. If the wanted server list is not appeared, please try RED button on remote to refresh the NFS server list.

Please select one of the server then press OK, the exported folders will appear like below picture. Please select one of those then press OK to connect.



The following dialog will appear shortly and connection will be made.



Caution:
Please use RealTEK RTL8188 Wi-Fi module for NFS thru Wi-Fi. The Ralink RT3070 Wi-Fi driver has some problem with NFS connection. The NFS + Ethernet configuration also does not have problem.

19.2 Network Connection using Samba

The following section explains how to connect the shared PC folders or NAS (Network Attached Storage) which runs Samba Server.

19.2.1 Activating PC Share

- Click right mouse button on the folder which will be shared. Select "Property" then "Sharing" TAB on the dialog box.

- Select "Share this folder" button on the dialog box
- The shared folder can be notified at file explorer, since the shared icon will appear on the left side of folder icon.

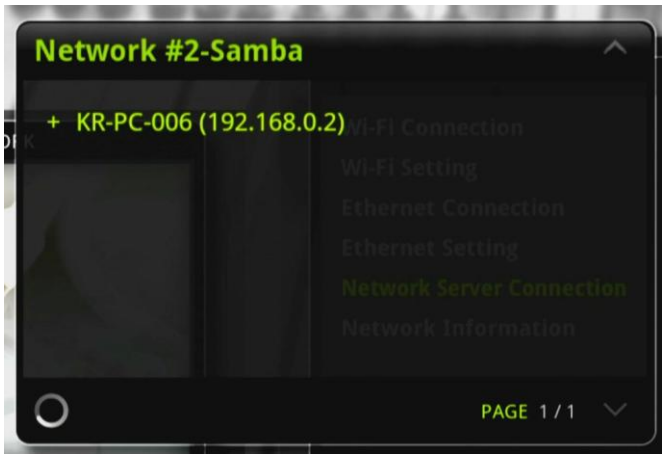
19.2.2 Connecting Samba Server at Device

Select <Settings Browser → Network → Network Server Connection >

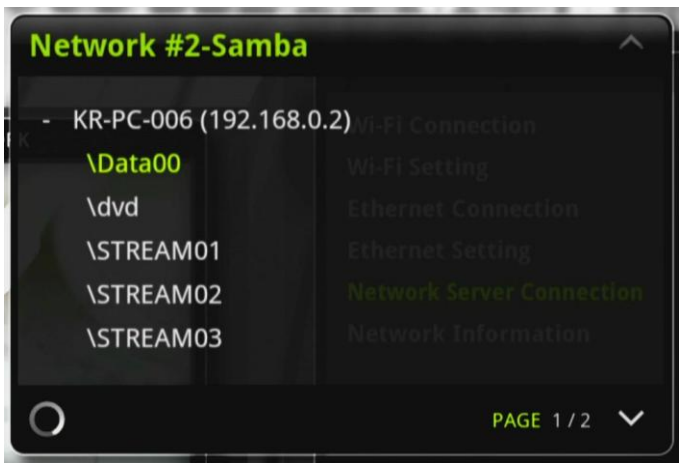
Network Server Connection
Network #1 [NFS, Connected]
Network #2 [Connecting]
Network #3 [Connecting]
Network #4 [Disconnected]
PAGE 1 / 1

Select "Samba" at dialog box.

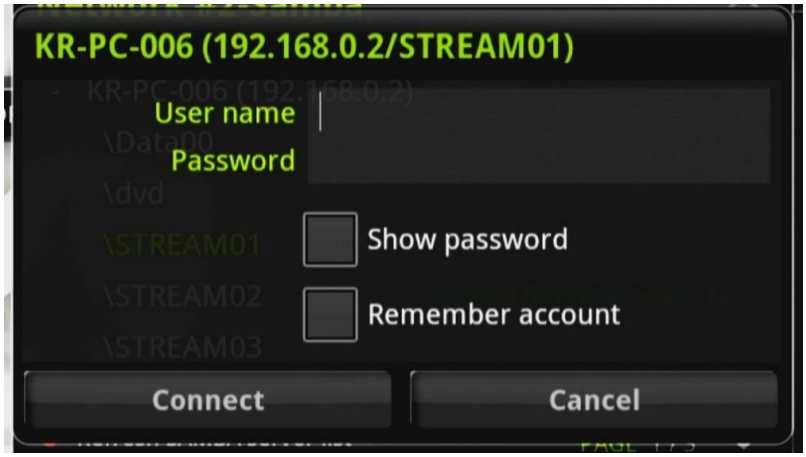
This will bring the SAMBA BROWSING dialog box like below. If the wanted SAMBA SERVER name is not appeared, please press RED button on remote.



The SAMBA server list will appear according to the PC-names or IP address. The "+" sign means it has several shared folders. Press OK button to unfold the server folder list, then select one of the folder to connect.



If the selected folder requires ACCESS RIGHT to connect it, the following dialog box will pop-up to enter the log-in account information.



Input the "User name" and "Password" using virtual keyboard. Please check "Remember account" checkbox to by-pass this log-in procedure at next connection.

The connection will be made after pressing "Connect" button.

19.3 Accessing Network Drive at File/ Media Browser

The shared folder connected thru can be accessible at <Movie/ Music/ Photo/ File Browser >. The below picture shows the selecting the NETWORK DRIVE at <File Browser>. Press <RED color> button on remote at File Browser to select the network drive. Select the network icon like following picture.

The shared folder will appeared and the files and folders can be browsed or playback.

20 Using DLNA

Tizzbird fully implements several DLNA stacks includes DMP (Digital Media Player), DMS (Digital Media Server) and DMR (Digital Media Renderer). It can be used very flexibly several ways.

DMP (Digital Media Player)

TizzBird can browse other DMS (Digital Media Server) servers including DLNA enabled PC, Smart Phone and NAS, and be able to playback the contents on the designated server.

DMR (Digital Media Renderer)

TizzBird can render (decode & do presentation) the contents which were designated by DMC (Digital Media Controller). For example, SMART PHONE can be used for browsing and controlling the contents on the DMS and designate the contents should playback on TizzBird output. So you can see the movie, photo and listen to the music on the SMART PHONE or DLNA server.

The beauty of this DMR is browsing can be done intuitively by smart phone, and output may appear on big screen TV. So user can enjoy the contents on several screens (so called N-screen) by designating the rendering output to any DMR device.

DMS (Digital Media Server)

TizzBird can be a DLNA server, so other DLNA device including SMART PHONE can browse and start playback the contents on the TizzBird.

So combined overall DLNA stacks, the mutual contents sharing between TizzBird and other device (TAB, SMART PHONE, PC) is quite easy and intuitive.

The **most important DLNA stack here can be DMR**. Because SMART PHONE or TABLET can be used as controller (DMC) and playback can be done on TizzBird. So users can easily browse contents on server or their phones, and see the contents on BIG SCREEN TV.

20.1 Preparation for DMR

✓ Preparing TizzBird & Access-Point

- Prepare TizzBird F12 or N1 for demonstrating DMR with Rev 2.90 or later firmware. Connect the Wi-Fi or Ethernet with prepared Access-Point.
- Enable the DLNA at "Settings Browser → Network → DLNA"

✓ Preparing Smart Phone.

- Prepare Android Smart Phone (Gingerbread or later) or iPhone and connect the same Access-Point as Tizzbird connected.
- Download the ***iMediaShare*** or ***Twonky*** app from the market.

✓ Preparing DLNA Server (Optional)

If you have a plan to browse or playback DMS using PC, please prepare like this.

- Download the latest Windows Media Player for DLNA server.
- Or download the Twonky Server on PC for DLNA server.

20.2 Sending Smartphone's Contents - iMediaShare APP

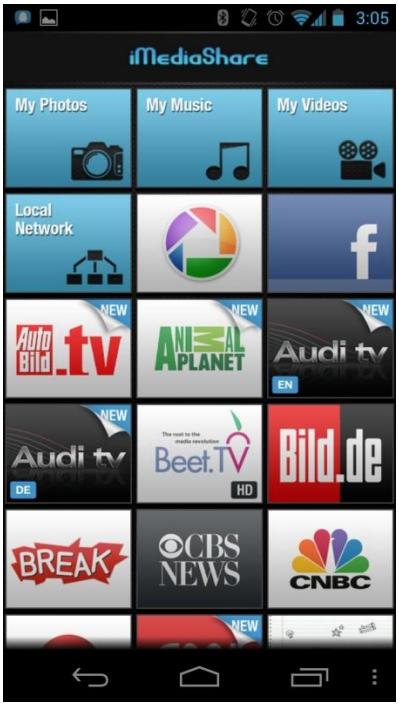
iMediaShare is a good example of DMC, DMS and connects contents to DMR. It has several on-line-site DLNA server examples, which are very good to demonstrate, and some of them are in High-Definition. iMediaShare is also available on iPhone.

✓ Execute the iMediaShare APP

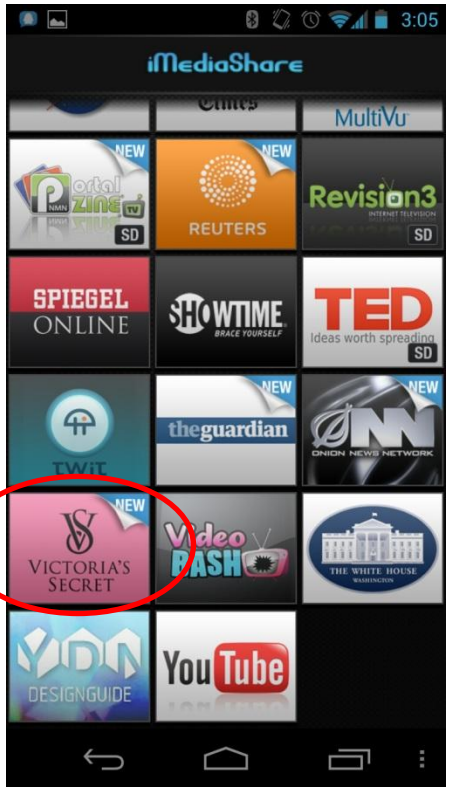
The iMediaShare startup screen will come up like below.

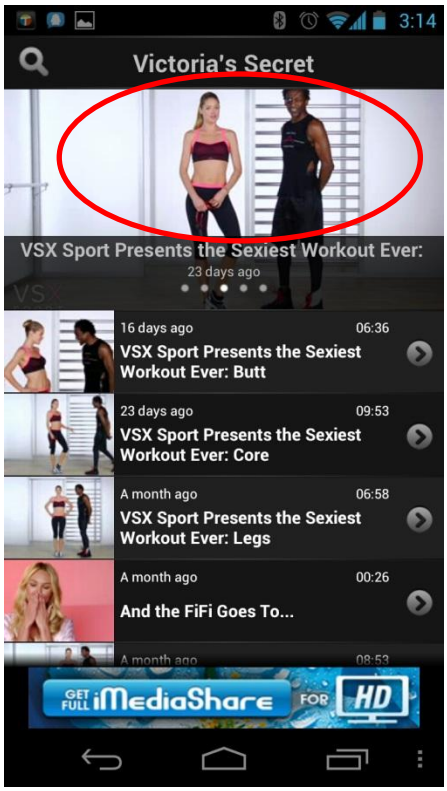
✓ Select the online site example

Select one of the on-line site examples. Below screen shows some candidates.



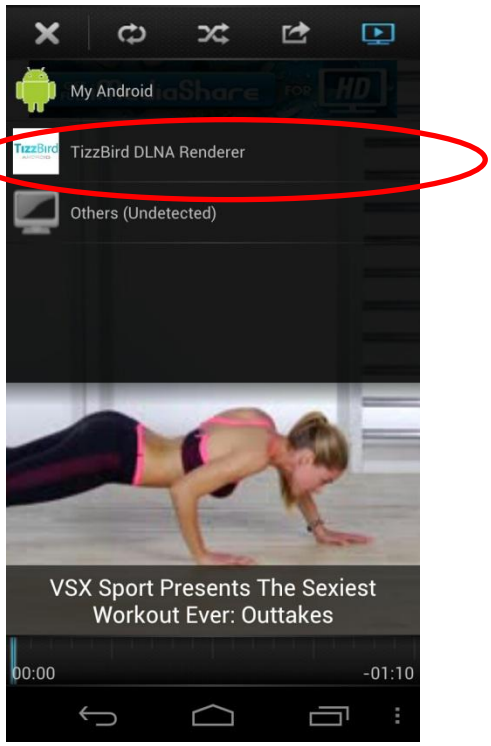
"My Photos", "My Music", "My Videos" show local contents on your phones. Below screen shows the "Victoria's Secret" on-line DLNA server. Click one of the contents.




3:14
Victoria's Secret
VSX Sport Presents the Sexiest Workout Ever:
23 days ago
16 days ago 06:36
VSX Sport Presents the Sexiest Workout Ever: Butt
23 days ago 09:53
VSX Sport Presents the Sexiest Workout Ever: Core
A month ago 06:58
VSX Sport Presents the Sexiest Workout Ever: Legs
A month ago 00:26
And the FiFi Goes To...
GET FULL iMediaShare FOR HD

✓ Select the final renderer.

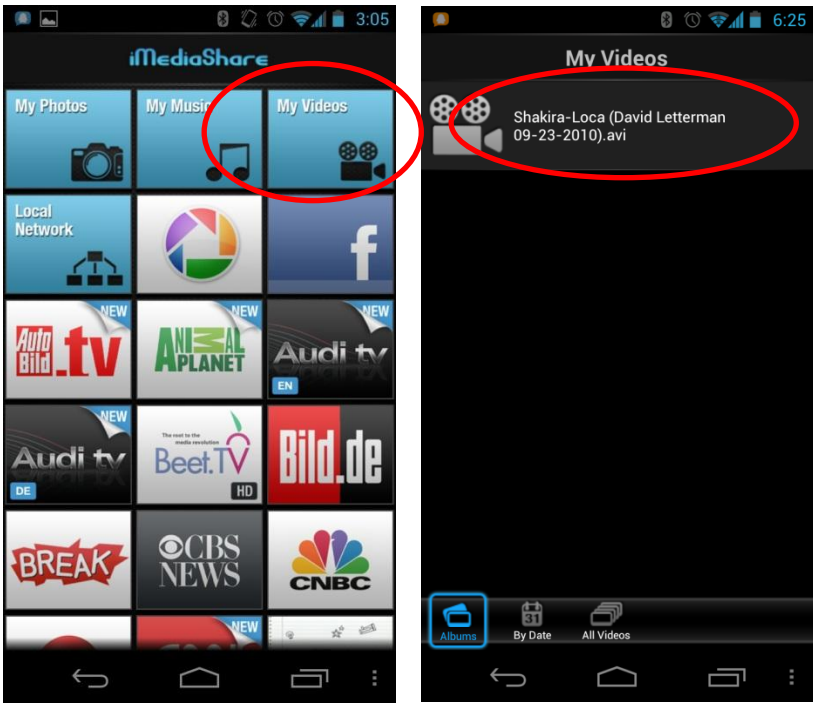
If you click one of the contents, and TizzBird settings are correct, the "RENDERER" selection pane will pop-up. Select **"TizzBird DLNA Renderer"**.



✓ Demonstrating Smart Phone local contents to Tizzbird

→ Select the contents on the SMART PHONE.

Select "My Videos" on the menu. Then following screen will pop-up

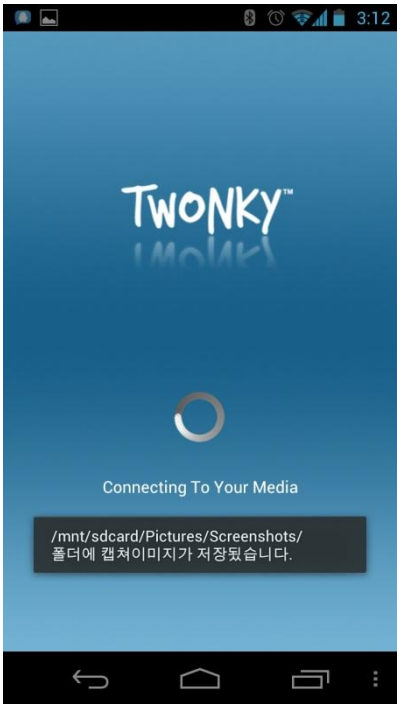


Select one of the movies you want to playback and Tizzbird will start playback. It's so-called DMR (Digital Media Renderer).

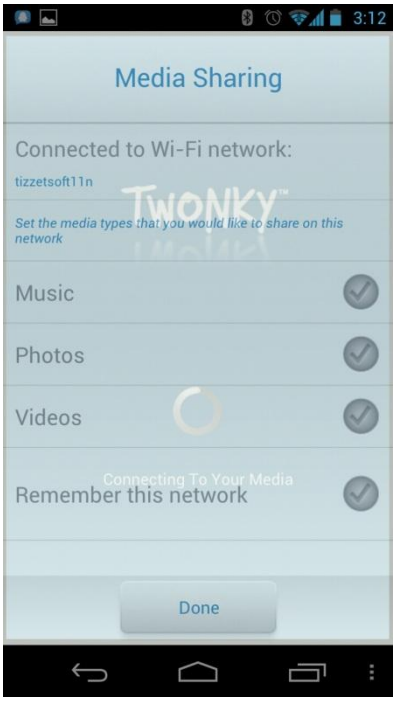
20.3 Sending Smartphone's Contents - TWONKY APP

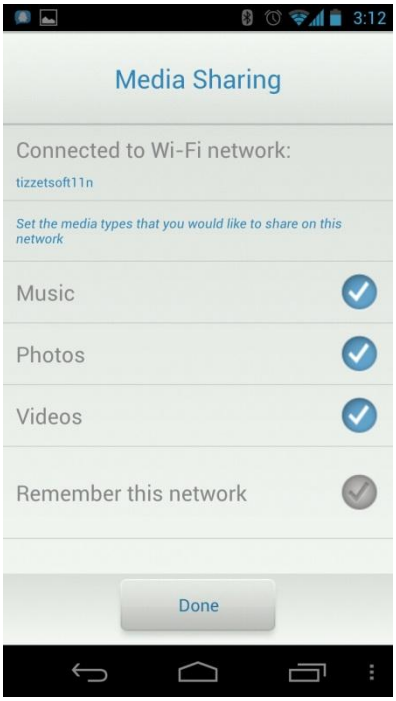
Twonky is a powerful DLNA app which let you browse overall DLNA server on your local network. It also provides playback controller which is very stable.

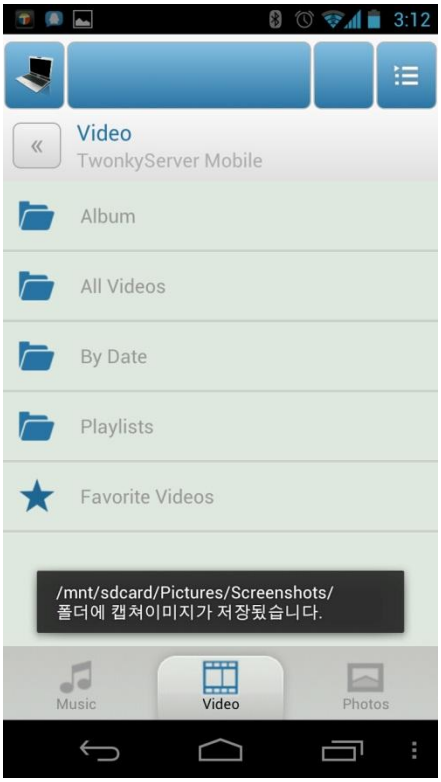
✓ Run Twonky



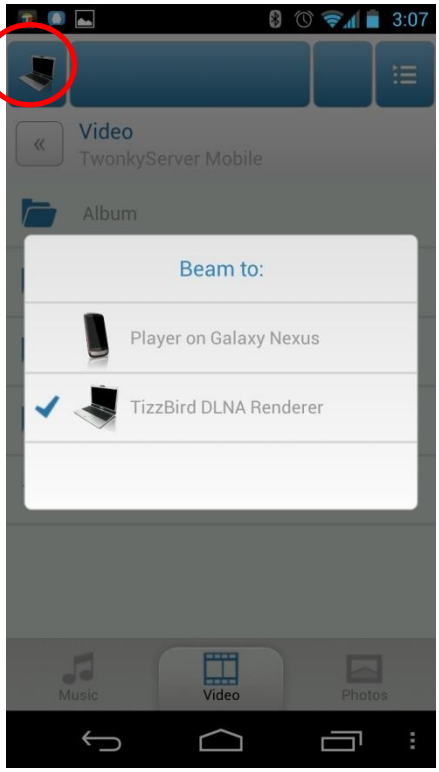
✓ Select categories of contents that you want to playback. Then select one of the contents







✓ Designate the renderer. Then the Tizzbird will start playback.



21 Firmware Upgrade

21.1 Online Upgrade (O.T.A – Over the Air Upgrade)

TizzBird will connect the firmware update server periodically (once a week) and pop-up upgrade prompt window automatically, if new firmware is available. If TizzBird is connected to the network, the upgrade can be performed as following.

1) Prompt the firmware if new version is available.
2) Select <SETTING BROWSER> → <SYTSTEM> → <FIRMWARE UPDATE>
3) Setting browser will can the new firmware available on network and pop-up the window.
4) Press <OK> to start upgrade.

21.2 Local Upgrade

Separately downloaded firmware (thru PC) can be upgraded like below. The upgrade will not take more than 1 minute.

21.2.1 Upgrade at Settings Screen

Copy or move the latest firmware to the root folder of USB flash or HDD drive.

- Connect the drive to USB port of the unit.
- Select <SETTING BROWSER> → <SYSTEM> → <FIRMWARE UPDATE>.
- SETTINGS BROWSER will scan the new firmware automatically and pop-up the window.
- Press *<OK>* button to start upgrade.

21.2.2 Upgrade at File Browser

Copy or move the latest firmware to the root folder of USB flash or HDD drive.

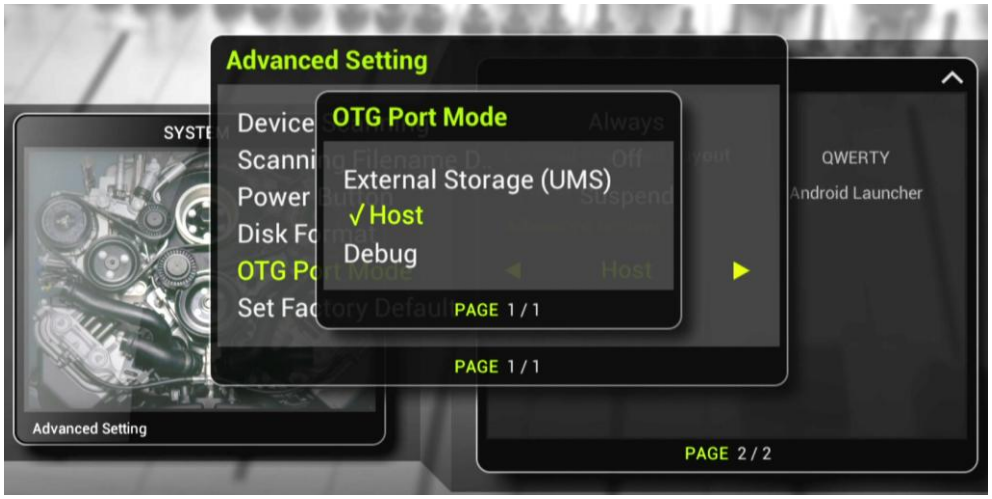
- Connect the drive to USB port of the unit.
- Select <FILLE BROWSER> at HOME SCREEN. .
- Browse the firmware file and press *<OK>* to start upgrade.

22 Using N1 as a Mass Storage

TizzBird N1 contains T-flash memory which is mainly used for Android system image and working area. Some part of T-flash area is assigned to SD-card area which is used by Android system as an external memory. This SD-card area can be accessible by PC as a USB mass storage device (UMS). So if you have 8G/ 16G/ 32GB version of TizzBird N1, you can use more extra SD card area for storing various multimedia contents.

Here's the procedure to access. Before do that, please **prepare normal micro-USB cable** to connect PC. The micro-USB cable is normal type that can connect SMART PHONE with PC USB port.

1) Connect N1 to TV and turn it on.
2) Select <SETTING BROWSER> → <SYTSTEM> → Page2 <Advanced Setting> → OTG Port Mode
3) Select **"External Storage (UMS)" to connect PC**.



4) Turn off the power of N1.
5) Connect PC with micro-USB cable you prepared.
6) The N1 will power-on and work as a MASS STORAGE DEVICE. You can freely access the N1's storage area including reading, writing & erasing.
7) After done, please **restore the <OTG Port Mode> to "Host"** when connect the N1 back to TV. Otherwise, the SD card area will not be accessible by Android system of N1.

23 How to Fix Booting Failure

This documentation is intended to provide repairing guide in case of booting failure of TizzBird. TizzBird F10/F11/F20/F30 is based on Android Gingerbread version while TizzBird N1 is ICS. Detailed specifications can be found at given package or http://www.tizzbird.com.

This repairing method is only applied from firmware revision 2.0.6 for F10/ F11/ F20/ F30 and revision 3.0.4 for N1/ F13/ F14.

23.1 Abstract

The symptom of booting failure looks like as below.

- Symptom A: No changes at BOOTING ANIMATION (Animation with black background)
- Symptom B: No changes at BOOTING LOGO (Tizzbird text with white background)

Above symptoms may be caused by several different reasons. There are two ways to fix these symptoms.

- Symptom A : Can be fixed using "*Safe Mode Booting*".
- Symptom B (or Symptom A) : Can be fixed using "*System Recovery Mode*".

23.2 Repairing by ***Safe Mode Booting***

Please follow below steps.

1) Power off device completely then turn it on again.
2) As soon as you see BOOT LOGO (TEXT with white background), press and hold <MENU> button on remote until home screen comes up.
3) You can read **"Safe Mode"** text at **left-bottom** side of screen**,** when you enter the SAFE BOOTING MODE**.**

After *SAFE MODE BOOTING*, you need to do one of below **action items**.

- Action item #1
  - Uninstall last APKs you have installed, as they may cause a booting failure.
- Action item #2
  - You need to back up your personal data and installed packages so far.
  - Do "Set Factory Default" by selecting "Settings Browser" → "System" → "Advanced Settings" → "Set Factory Default" with "Erase all" option.

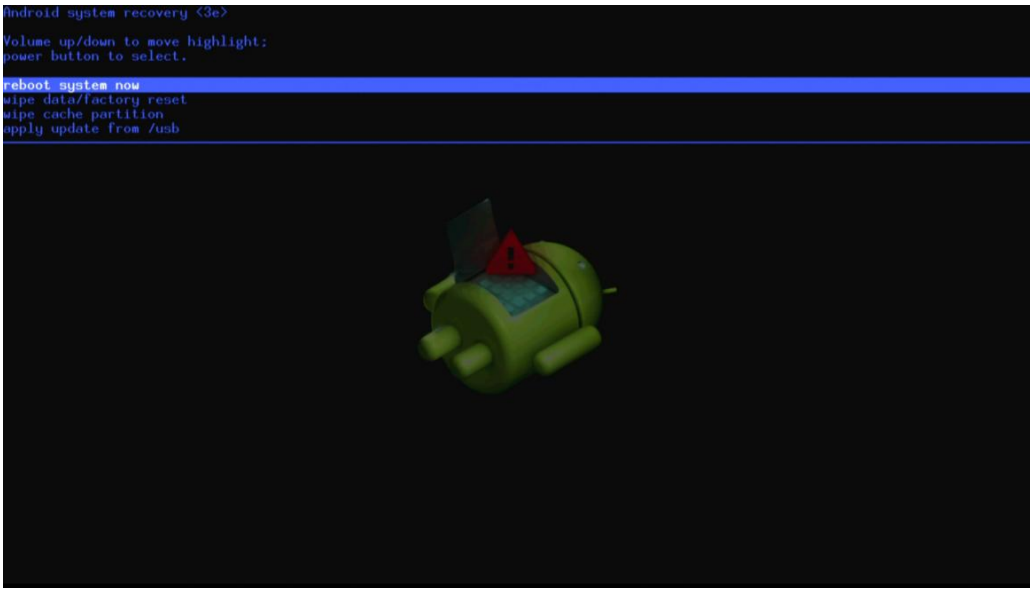
23.3 Repairing by ***System Recovery Mode***

23.3.1 Preparation

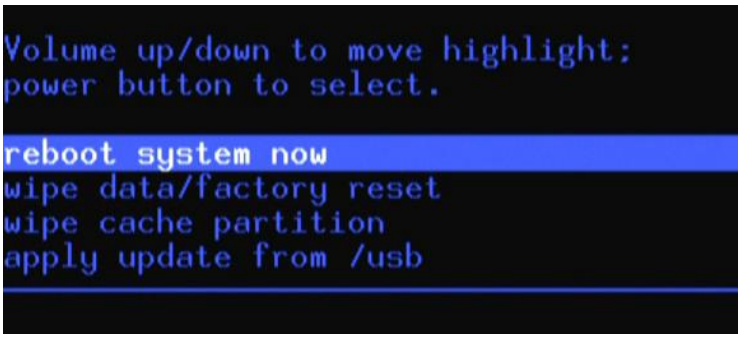
1) Prepare USB flash drive which has more than 128MB of free space.
2) Download the latest upgrade firmware from Tizzbird WEB (http://www.tizzbird.com) according to your device. Normally the name of upgrade package is something like ***"Tizzbird_mmm_update_vvv.tzbird". "mmm"*** means model name like "F3x", "F20". "***vvv***" means update version and date like "V2_06_2102115".
3) Copy downloaded firmware to root folder of USB flash drive. Then rename it **"update.zip"**

23.3.2 Entering System Recovery Mode

1) Power off device completely then turn it on again. If you're not sure, pull the power cable off then reconnect it.
2) As soon as you turn on power, press <RED> button on remote twice within 3 seconds. The following screen will come out (Require ***revision 3.0.4*** or later firmware)



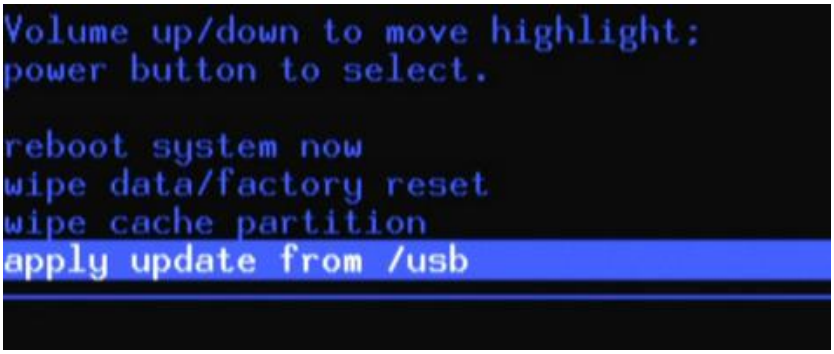
3) There are four menus.



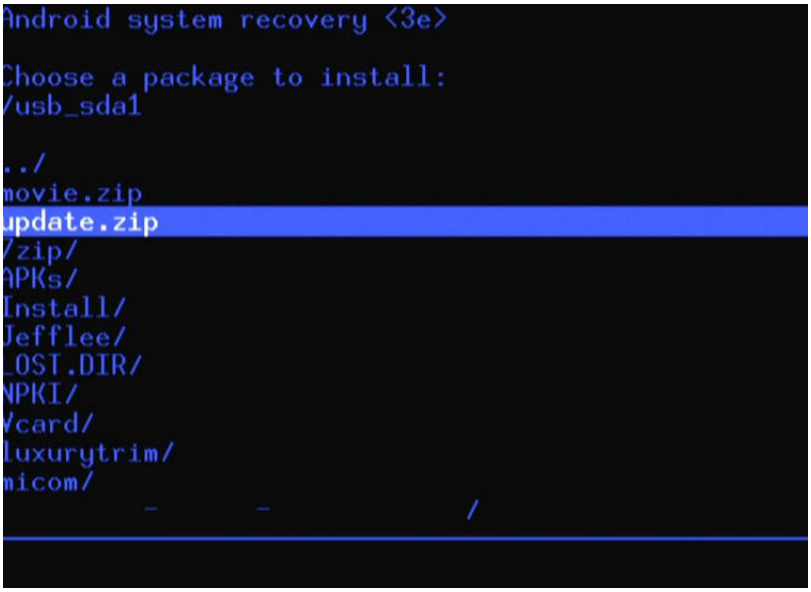
If you want to factory reset status, then select **"wipe data/ factory reset".** This will help the situation when some applications you installed cause a problem.

4) Apply "**wipe cache partition**" first.

5) To make the device reboot again with fresh image, put the USB flash drive on the USB port, then select **"apply update from /usb"**. Please make sure that you have update.zip on the USB drive.



6) On the following screen, select "update.zip" on the drive.



7) The system will erase whole area of internal flash and start to update like below picture. The progress bar will show the current progress.

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http://www.tizzbird.com/eng/index.php?mm_code=752&sm_code=754

The source code can be sent to your address via airmail for a charge of actual expense executed. Please contact us at sales@valueplus.co.kr

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